

OPERATIONALIZING SPECIAL OPERATIONS  
AVIATION IN INDONESIA

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MASTER OF MILITARY ART AND SCIENCE  
General Studies

by

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## ABSTRACT

### OPERATIONALIZING SPECIAL OPERATIONS AVIATION IN INDONESIA

By MAJ Garret K. Messner, 109 pages.

This study researched the possible roles and missions conducted by the United States Special Operation Aviation (SOA) community, particularly rotary-wing, fix-wing, unmanned aerial vehicles' roles, as well as SOA's role in Foreign Internal Defense. After determining the roles and missions of SOA, a center of gravity analysis was conducted on the Jemaah Islamiah, Southeast Asia's most dangerous terrorist group with global reach, to determine how SOA can be used to defeat the violent extremist organizations in Indonesia. The research concluded that SOA would have an important, but limited role in the global war on terror in Indonesia.

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## ACRONYMS

AFSOC	United States Air Force Special Operations Command
ARSOA	Army Special Operations Aviation
CAA	Combat Aviation Advisory
CC	Critical Capabilities
CoG	Centers of Gravity
CR	Critical Requirements
CV	Critical Vulnerabilities
DoD	Department of Defense
DoS	Department of State
FID	Foreign Internal Defense
FM	Field Manual
GWoT	Global War on Terror
ISR	Intelligence, Surveillance and Reconnaissance
JI	Jemaah Islamiah
JP	Joint Publication
NDS	<i>National Defense Strategy of the United States of America</i>
NMSP-WOT	<i>National Military Strategic Plan for the War on Terrorism</i>
NSS	<i>National Security Strategy of the United States of America</i>
SOA	Special Operations Aviation
SOF	Special Operations Forces
SOAR(A)	Special Operations Aviation Regiment (Airborne)
USASOC	United States Army Special Operations Command
UAV	Unmanned Aerial Vehicles

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## CHAPTER 1

### INTRODUCTION

#### Introduction and Background

On 20 September 2001, President Bush declared to the world that the United States’ “war on terror begins with al-Qaeda, but it does not end there. It will not end until every terrorist group of global reach has been found, stopped and defeated” (White House 2001). Thus far, the United States has been conducting a very visible global war on terror (GWOt) primarily in the Middle East under the command of United States Central Command (commonly CENTCOM). However, this does not mean that the GWOt is not being executed in other parts of the world. As the visible GWOt continues to develop into a truly global war, the United States will need to focus on Southeast Asia and will eventually have to deploy more and more assets to Southeast Asia, and in particular to Indonesia.

The Special Operation Aviation (SOA) forces of the United States have provided an integral role in all current GWOt operations including: Operation Enduring Freedom–Afghanistan, Operation Enduring Freedom–Philippines, and Operation Iraqi Freedom. General Doug Brown, Commander of the United States Special Operations Command stated, “The contributions . . . to free an oppressed people and deny sanctuary for global terrorism were absolutely critical to the success of Operation Enduring Freedom” (Biscoe et al. 2003, i). Throughout the recent campaigns in Afghanistan and Iraq, SOA have executed each one of their primary missions on multiple occasions as well as forged new tactics, techniques and procedures. The primary SOA capabilities and missions provided the United States with the “global ability to conduct special operation missions ranging

from precision application of firepower, to infiltration, exfiltration, resupply, and refueling of Special Operations Forces (SOF) operational elements” (Public Affairs Office 2005). Obviously, SOA has played a vital role supporting SOF in the on-going GWoT.

In September 2002, the United States laid out its strategic objectives in the *National Security Strategy of the United States of America* (NSS). In the NSS, President Bush announced specific objectives for conducting the GWoT (White House 2002). Indonesia has an integral role of the execution of the NSS. Building on the NSS, Secretary Donald Rumsfeld published the *National Military Strategic Plan for the War on Terrorism* (NMSP-WOT). In the NMSP-WOT, the Chairman of the Joint Chiefs of Staff, General Peter Pace, stated, “[This NMSP-WOT] is meant to serve as a guide for further planning and to articulate how the military will contribute to achieving our Nation’s objectives in the war” (NMSP-WOT 2006, 2). This strategy focuses military planners towards international terrorists and their safe heavens; this includes Southeast Asia and in particular Indonesia (NMSP-WOT 2006, 4).

The GWoT is certainly expanding outside of Afghanistan and Iraq. “On August 5th, 2003, a car bomb exploded outside the J. W. Marriott Hotel in Jakarta, Indonesia, killing 12 and wounding 150. Once again, al-Qaeda affiliated group Jemaah Islamiah (JI) was responsible” (Global Security 2006c). This bombing, the Bali bombings, and many other terrorist activities in the region only serve as notice that the GWoT has arrived in Indonesia. In fact, the United States has already begun small-scale actions throughout Southeast Asia. While visiting the Philippines, President Bush said, “The cooperation between the United States and the Philippines is strong. The success against [Abu

Sayyaf] is a model for the region, as far as I'm concerned" (White House 2003b).

Obviously, the GWoT has already arrived in Indonesia.

It is standard practice for military planners to develop concept and operation plans for multiple countries within their area of operations: Indonesia is no exception for the planners at United States Pacific Command and the United States Special Operations Command–Pacific. This thesis will help those planners determine how to use SOA on the Indonesian battlefield. Consequently, this thesis will attempt to accomplish two primary objectives. First, it will develop an operational planning model which will allow innovative analysis of the enemies' centers of gravity (CoG) with respect to the United States assets available to conduct military operations. This model will serve as the foundation to complete the necessary research. Following the explanation of the model, the thesis will determine how SOA can best be used in Indonesia to support the United States military objectives in the GWoT.

### Research Questions

Primary Research Question: What is the role of SOA in support of the United States' military objectives in the GWoT in Indonesia? In order to better focus the research, it will be divided into four separate secondary research questions.

Secondary Research Question 1: Which roles and missions provided by fixed-wing SOA aircraft can best be used by the United States in the GWoT inside Indonesia?

Secondary Research Question 2: Which roles and missions provided by rotary-wing SOA aircraft can best be used by the United States in the GWoT inside Indonesia?

Secondary Research Question 3: Which roles and missions provided by unmanned aerial vehicles (UAV) can best be used by the United States in the GWoT inside Indonesia?

Secondary Research Question 4: Which roles and missions provided by SOA Foreign Internal Defense (FID) can best be used by the United States in the GWoT inside Indonesia?

### Background Requirements

To focus on the analysis, a variety of background issues will be researched and discussed. These can be divided into two separate research areas. First is the operational planning model. There are currently no operational planning models available which provide an appropriate framework to determine the uses of SOA in GWoT. Consequently, a simple model needs to be created. This model will be created using the many different academic writings on the subject. This provides the framework for the research methodology.

Secondly, the threats to the United States and its allies in Indonesia must be understood. This research will focus on the many different terrorist-linked threats in Indonesia. There are three major regional groups with international ambitions that will be explored: al-Qaeda, JI, and Abu Sayyaf Group. These three groups represent the majority of the international terrorist groups working in Indonesia. This study will also concentrate on internal Indonesian threats and other potential terrorist groups with regional ties to terrorism.

### Assumptions

The following assumptions are used throughout the entirety of this work.

1. The United States will continue to execute the GWoT for the foreseeable future. Consequently, the continuing danger of a regional or global terrorist threat emerging in Indonesia will continue to be a valid threat to United States national interests and consequently the national security. This thesis recognizes that the GWoT, the “Long War,” and the “Global Insurgency,” are all part of the same conflict and, regardless of the name, will directly impact the United States interests in Indonesia.

2. Usama Bin Laden’s 1998 fatwa will remain in effect for the foreseeable future. This will cause the al-Qaeda organization and its derivative terrorist organizations to see the United States as not only a valid terrorist target but as the premier terrorist target (Bin Laden 1998).

3. International terrorist and extremist organizations throughout the world will continue to blame the United States of America for the world’s evils.

### Limitations

The ongoing GWoT operations around the world restrict much of the current information of SOA tactics, techniques, and procedures to the classified level. This will impact the research of this thesis as it is intended to remain unclassified to reach the largest audience possible. Therefore, SOA will be discussed in broader, unclassified terms and consequently be limited to a discussion of the utilization of SOA at the strategic and operational level.

The focus of this thesis is on United States special operations. If during the course of the research, another country’s aviation community provides relevant insight and

direction for this thesis, it will be considered. However, the primary focus will remain on the United States SOA community. Consequently, the entire thesis will be written from the United States military point of view.

### Delimitations

For the purpose of this thesis, this author intends to only consider aviation assets that have a chain of command directly under the United States Special Operations Command (USASOC), specifically, the United States Army's 160th Special Operations Aviation Regiment (Airborne) (SOAR(A)) and the United States Air Force Special Operations Command (AFSOC). This author understands that there are many different aviation assets that can accomplish many of the SOA missions. However, the focus will be on USASOC aviation assets only.

### Significance of the Study

This thesis will help military planners incorporate SOA support into the United States' military plans for the GWoT in Indonesia. Recognizing that there is no single approach to counterinsurgency and the GWoT, this thesis will provide ideas to future military planners. Additionally, both the thesis research methodology and the operational planning model have the potential to be used by military planners to determine SOA asset allocation at the operational level in any future operation. This thesis must accomplish two primary objectives. First, it will develop an operational planning model. The model will form the basis for the research methodology. It will allow an innovative analysis of the enemies' CoG with respect to the United States assets available to conduct military

operations. Using this model, the thesis will then determine what roles and missions SOA will execute in Indonesia utilizing the operational planning model.

### Summary

The GWoT is truly a global counterinsurgency war. The United States has already engaged Islamic extremists and other insurgent groups throughout Southeast Asia. This will continue in the near future. SOA has the potential to provide a significant role in these operations. Utilizing the “operation planning model” will provide an excellent means for military planners to determine SOA’s future roles and missions. It will also help in the planning and execution of the global counterinsurgency campaign the country is engaged in.

## CHAPTER 2

### LITERATURE REVIEW

#### Introduction

Following the terror attacks in September 2001, the United States, for all intents and purposes, declared a worldwide war on international terrorism. Thus far, the war has been essentially focused on the Middle East, most visibly in Afghanistan and Iraq. This war will eventually expand to Indonesia. It is standard practice for military planners to develop contingency and operations plans for multiple countries within their area of operations; Indonesia is no exception for the planners at the United States Pacific Command and the United States Pacific Special Operations Command. This thesis will help those planners determine how to use SOA on the Indonesian battlefield. Consequently, this thesis will attempt to accomplish two primary objectives. First, it will develop an operational planning model which will allow innovative analysis of the enemies' CoG with respect to the United States assets available to execute military operations in Indonesia. This model will serve as the research methodology to complete the necessary research. Utilizing the operational planning model, the thesis will determine how SOA can best be used in Indonesia to support the United States military objectives in the GWoT. Consequently, this chapter will review the available information and literature with regards to SOA and the operational planning model.

Since the advent of war, military planners have struggled with the task of translating strategic objectives into an operational level military plan. To accomplish this, the planner must know and understand the national level strategies. He must determine and follow the intent from the civilian leadership and president. He must also understand

the enemy threat he will encounter and most importantly, the planner must understand the assets available for these operations. He must also understand the capabilities these assets bring to the campaign. This understanding will allow the planner to determine the assets required to properly execute the military operation. The purpose of this research is to help the planner determine what the role of SOA in the GWoT in Indonesia will be.

Unfortunately, no framework or system exists to operationalize SOA into the GWoT. In order to accomplish this objective, four distinct subproblems will be researched, as well as the background information required to understand the GWoT in Indonesia.

To this end, the review of relevant literature will focus on which roles and missions of fix-wing and rotary-wing special operations aircraft that can best be used by the United States in the GWoT. A review will also be conducted in the roles and missions provided by UAV and how SOA FID can be used by the United States in the GWoT inside Indonesia. To further focus the analysis, a variety of background issues will be reviewed and discussed. Essentially, the literature review will be divided into three distinct areas: (1) the roles and missions of SOA aircraft, (2) the operational planning model, and (3) a general background review of Indonesia.

### Roles and Missions of Special Operations Aircraft

The relevant literature with regards to the roles and missions of the special operations aircraft is contained in three distinct locations and documents. The first and most important documents describing the roles and missions are the available military publications. The primary and most important document is Joint Publication (JP) 3-05, *Joint Special Operations*. JP 3-05 describes very clearly the types of missions expected by SOF. Special operations execute these core tasks: direct action, civil affairs

operations, special reconnaissance, psychological operations, FID, information operations, unconventional warfare, counterterrorism, and counterproliferation of weapons of mass destruction (Chairman, Joint Chiefs of Staff 2003, II-5).

SOA contributes to these missions in a variety of ways. Throughout history, “success by a small force against a strategic or operational objective usually has required units with combinations of special equipment, training, people, or tactics that go beyond those found in conventional units” (Chairman, Joint Chiefs of Staff 2003, II-1). SOA provides special equipment, training, and tactics to support the special forces’ core missions. JP 3-05 also directs SOF to execute high-value targets of strategic significance (Chairman, Joint Chiefs of Staff 2003, I-4).

The United States Air Force has added additional doctrine that must be reviewed. Air Force Doctrine Document 2-7 defines how the United States Air Force will utilize its special operations aircraft to meet the core missions of the United States SOF. The AFSOC has focused its assets into three distinct missions designed to accomplish these objectives. Air-to-surface interface is designed to provide terminal control and collect information via special reconnaissance and to provide battlefield trauma care. This mission covers a wide range of duties from collecting information, to operating tactical sensors, including unmanned systems (Department of the Air Force 2005, 10).

Agile combat support provides precise and responsive combat support to AFSOC forces across the range of military operations (Department of the Air Force 2005, 10). Finally, Combat Aviation Advisory (CAA) Operation is a special operation specifically tailored to assess, train, advise, and assist foreign aviation forces in air operations

employment and sustainability (Department of the Air Force 2005, 10). CAA is part of FID.

The United States Army Special Operations Aviation (ARSOA) forces are regulated by FM 3-05.60, *Army Special Operations Forces Aviation Operations*. This publication clearly describes their mission: “ARSOA is to plan, conduct, and support SO [special operations] by clandestinely penetrating non-hostile, hostile, or denied airspace” (Department of the Army 2000, 1-1). As important as describing the ARSOA mission, Appendix B to FM 3-05.60 describes ARSOA’s aircraft capabilities and missions.

The Internet also provides valuable information on potential roles and missions of SOA. The primary Internet sites are the AFSOC and the USASOC official websites. These sites provide accurate unclassified information that will be required to determine the roles of SOA in the GWoT.

### The Operational Planning Model

Throughout the review of the literature two experts in the theories of operational planning stand out. Each author adds a very important piece to the literature with regards to the operational planning model.

Dr. Joe Strange has written extensively on the role of CoG in operational planning. In his 1996 thesis, Dr. Strange researched “the relationship between centers of gravity and critical vulnerabilities, and suggest[ed] an analytical model that joint warfighters and planners” can use to assist in strategic and operational-level planning (1996, 4). In Dr. Strange’s model, he relates both friendly and enemy CoG to their critical capabilities, critical requirements, and their critical vulnerabilities.

Dr. Strange explores what Clausewitz really meant by the term “CoG.” He established beyond doubt that Clausewitz intended CoG to represent a nation’s strength, either moral or physical. The Clausewitz vision of a CoG “is a dynamic and powerful agent in its own right.” Dr. Strange also argues that “the current Joint and NATO definition of center of gravity is incorrect, implying it to be a source of strength, and that this misdefinition has been responsible for much of the confusion about the concept that exists today” (Strange and Iron 2005a, 1).

In Dr. Strange’s article “Understanding Centers of Gravity and Critical Vulnerabilities” (part 2), he examines the role of CoG in operational design. The research methodology is based on Dr. Strange’s CoG writings. Dr. Strange’s writing explores and develops the relationship between a nation’s CoG and its critical vulnerabilities. He suggests an analytical model that joint warfighters and planners can use to assist strategic and operational-level planning. His model analyzes “existing and potential vulnerabilities of a center of gravity, and determine which of those could be especially critical” (Strange and Iron 2005b, 1).

Dr. Jack D. Kem in his monograph entitled, “Campaign Planning: Tools of the Trade,” builds on Strange’s CoG theories and current doctrine and tactics, techniques and procedures with regard to operational planning. His work provides a bridge from theory and doctrine to the current operational framework.

In “Campaign Planning: Tools of the Trade,” Dr. Kem provides working definitions of campaign concepts and key tactics, techniques, and procedures to be used when planning operational level campaigns. Dr. Kem discusses the interaction between key concepts; like CoG planning, “ends, ways, and means,” and logical lines of

operations. Kem's approach to campaign planning combined with Strange's ideas of CoG planning form the bases of this research methodology.

Besides academic works, numerous government documents that must be reviewed and understood to receive the complete picture of the existing operational level planning literature.

The literature foundation for operational level planning is clearly the Joint Publications. JP 3-0, *Joint Operations*, is the “capstone” document in the joint doctrine publication hierarchy. JP 3-0 addresses the way the military planners should conduct the military campaign in Southeast Asia. This document represents the actual “how to” portion of the relevant literature. However, it fails to address SOF in general and SOA in particular. Without a clear understanding of the roles, missions, and capabilities of SOA, the military planner will not be able to effectively plan and execute an operational-level campaign utilizing SOA.

JP 5-0, *Planning Joint Operations*, defines how “existing and projected capabilities will be used to obtain objectives.” JP 5-0 will be integral in determining how SOA will be used in the GWOT in Southeast Asia.

Finally, JP 3-05, *Joint Special Operations*, defines the roles and missions of SOA. This document forms the foundation of literature required to “identify, nominate, and select objectives and missions for Special Operations Forces” to include SOA. The JPs and service specific publications represent the body of relevant literature when determining roles, missions, capabilities, and proper utilization of SOA assets.

### United States Strategic Documents

There are three primary documents that discuss the current focus of the United States' national security strategy. The first and most recent is the *NSS*, published in March 2006. This document clearly defines President Bush's strategic vision and objectives for the United States. There are four strategic objectives that will be relevant to special operations in Southeast Asia. These objectives are: "champion aspirations for human dignity; strengthen alliances to defeat global terrorism and work to prevent attacks against us and our friends; prevent our enemies from threatening us, our allies, and our friends with weapons of mass destruction (WMD); and expand the circle of development by opening societies and building the infrastructure of democracy" (White House 2006b, 1). These four objectives will be critical in defining the roles and missions of SOA in Indonesia.

Directly connected to the *NSS* is the *National Defense Strategy of the United States of America (NDS)*, dated March 2005. Secretary Rumsfeld in the *NDS* clearly lays out the military's national strategy objectives. He tasked military planners with the mission to "secure the United States from direct attack, secure strategic access and retain global freedom of action, and strengthen alliances and partnerships" (Department of Defense 2005, iv). Southeast Asia is key to achieving these stated objectives. Also in this document, Secretary Rumsfeld gives specific guidance to accomplish the military objectives. He also defines how the military assets and capabilities will be implemented in support of the growing war on terror.

The final national security document examined during the literature review is the *NMSP-WOT* published in February 2006. This document is the most critical document

with regards to operationalizing SOA. Secretary Rumsfeld in his forward to the *NMSP-WOT* states, “It is meant to provide the department’s commanders and planners guidance on military objectives, and their relative priority in the allocation of resources” (2006, 1). General Peter Pace, Chairman of the Joint Chiefs of Staff, states that this document is “meant to serve as a guide for further planning” (*NMSP-WOT* 2006, 2). The *NMSP-WOT* will form the initial foundations in determining the relevance of SOA as a weapon system in Southeast Asia.

Most importantly, the *NMSP-WOT* defines the enemy. The literature has remained amazingly silent with regards to the United States’ enemy since 11 September. The *NMSP-WOT* defines the enemy as “a transnational movement of extremist organizations, networks, and individuals--and their state and non-state supporters--which have in common that they exploit Islam and use terrorism for ideological ends” (2006, 4). This is a critical piece of information in the thesis. This common definition of the enemy applies throughout the world, including Indonesia. Defining, understanding, and eventually locating the enemy are essential to developing an operational plan using SOA.

### Review of Indonesia

The threats to the United States and the allies in Indonesia must be understood. This research will focus on the many different terrorist-linked threats in Indonesia. There are three major international groups that will be focused on: al-Qaeda, JI, and Abu Sayyaf. These three groups represent the majority of the international terrorist groups working in Indonesia. The research will also concentrate on internal Indonesian threats and other potential terrorist groups with regional ties to terrorism.

The most encompassing research on terrorism in Indonesia is Maria A. Ressa's *Seeds of Terror, An Eyewitness Account of Al-Qaeda's Newest Center of Operations in Southeast Asia*. Ressa provides a firsthand account of the recent terrorist attacks throughout Southeast Asia, as well as an overview of how local Muslims were groomed to be terrorists by al-Qaeda and other extremist groups. Her work does an excellent job tying the various terrorist organizations operating throughout Southeast Asia and demonstrating how al-Qaeda operates in Indonesia, the Philippines, Malaysia, and Singapore as a loose network of groups. She shows how these groups are all linked by the principle "if one Muslim hurts, we all hurt" (2003, x).

Ms. Ressa provides an excellent description and background on the main terrorist group in Indonesia, JI, headed by Abu Bakar Ba'asyir, "the Asian Osama bin Laden" (2003, x). She thoroughly documents al-Qaeda's failed plan to attack United States Soldiers in Singapore and its successful plan to bomb the Kuta nightclub on Bali. This work describes this volatile region. Clearly the GWoT has arrived in Indonesia.

### Summary and Conclusions

In February 2006, the Department of Defense (DoD) determined that a consistent approach to defeating terrorist networks would require many new capabilities. One of these essential capabilities is "Special Operations forces to conduct direct action, foreign internal defense, counterterrorist operations and unconventional warfare" (Department of Defense 2006b, 23). The SOF community is growing and its primary focus is the GWoT. SOA is an integral part of SOF. Consequently, operational level planners must understand the capabilities, the limitations, and what is the best way to utilize SOA's "high demand-low density" national assets.

The literature review confirms the need for a strong framework for military planners to determine the roles and missions of the SOA in the continuing GWoT. The GWoT is truly a global counterinsurgency war. The literature shows the terrorists are already engaged in Indonesia. In fact, the United States has already engaged Islamic extremists and other insurgent groups throughout Southeast Asia. Joint Task Force-510's deployment to the southern Philippines in January 2002 is only the beginning. These missions will continue to emerge in the future. SOA has the potential to provide a significant role in these operations. Utilizing the operation planning model will provide an excellent means for military planners to determine SOA's future roles and missions. It will also help in the planning and execution of the global counterinsurgency campaign the United States is engaged in.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### Introduction

In the last chapter, the researcher discussed the body of research regarding SOA, operational and campaign planning, and the current threats in Indonesia. A great deal of research has been conducted with regards to each of these three separate concepts. However, very little has been written about the actual utilization of SOA in Indonesia and the GWoT. Since the purpose of this thesis is to determine the role of SOA in Indonesia, a methodology for objectively determining the roles and missions must be developed.

The GWoT is truly a global counterinsurgency war. The United States has already engaged Islamic extremists and other insurgent groups throughout Southeast Asia. SOA has the potential to provide a significant role in these operations. Utilizing the “operation planning model” will provide an excellent means for military planners to determine SOA’s future roles and missions in Indonesia. The operational planning model will also help in the planning and execution of the global counterinsurgency campaign the United States is engaged in.

This chapter presents the methodology used for the analysis and determination of the answer to the thesis primary research question. Utilizing the operational planning model, this thesis will help those planners determine what the role of SOA is in support of the United States’ military objectives in the GWoT in Indonesia? Consequently, two primary objectives must be accomplished. The operational planning model will allow an innovative analysis of the enemies’ CoG with respect to the United States assets available to execute military operations in Indonesia. Utilizing the operational planning model, the

thesis will determine how SOA can best be used in Indonesia to support the United States military objectives in the GWoT. This chapter will describe the operational planning model.

In the search for a model that allows SOA to be operationalized, this author discovered that no model exists. There is not a model for military planners to operationalize the contemporary battlefield. Therefore, the development of the operational planning model could prove useful to operational level planning in determining requirements and assets. This model will allow military planners to develop an “effects” based, executable operational-level military campaign. The operational planning model is a six step model based on the United States military’s joint operational planning doctrine and the academic works of Dr. Joe Strange. This chapter will describe the operational planning model in detail. It will then describe the process used to obtain information needed to address the primary and secondary research questions. Finally, the chapter will discuss the criteria used to determine the feasibility, suitability, and reliability of the relevance of examples.

### The Operational Planning Model

This thesis will utilize the operational planning model to form the essence of the research methodology. The operational planning model provides a model-based qualitative content analysis of what role SOA will play in Indonesia in the GWoT. This model will translate national strategic objectives into a useable operational level plan. It will determine the available assets and weapon systems assigned against specific targets and objectives. The roles and missions of SOA in the GWoT will be determined using the operational planning model (figure 1).

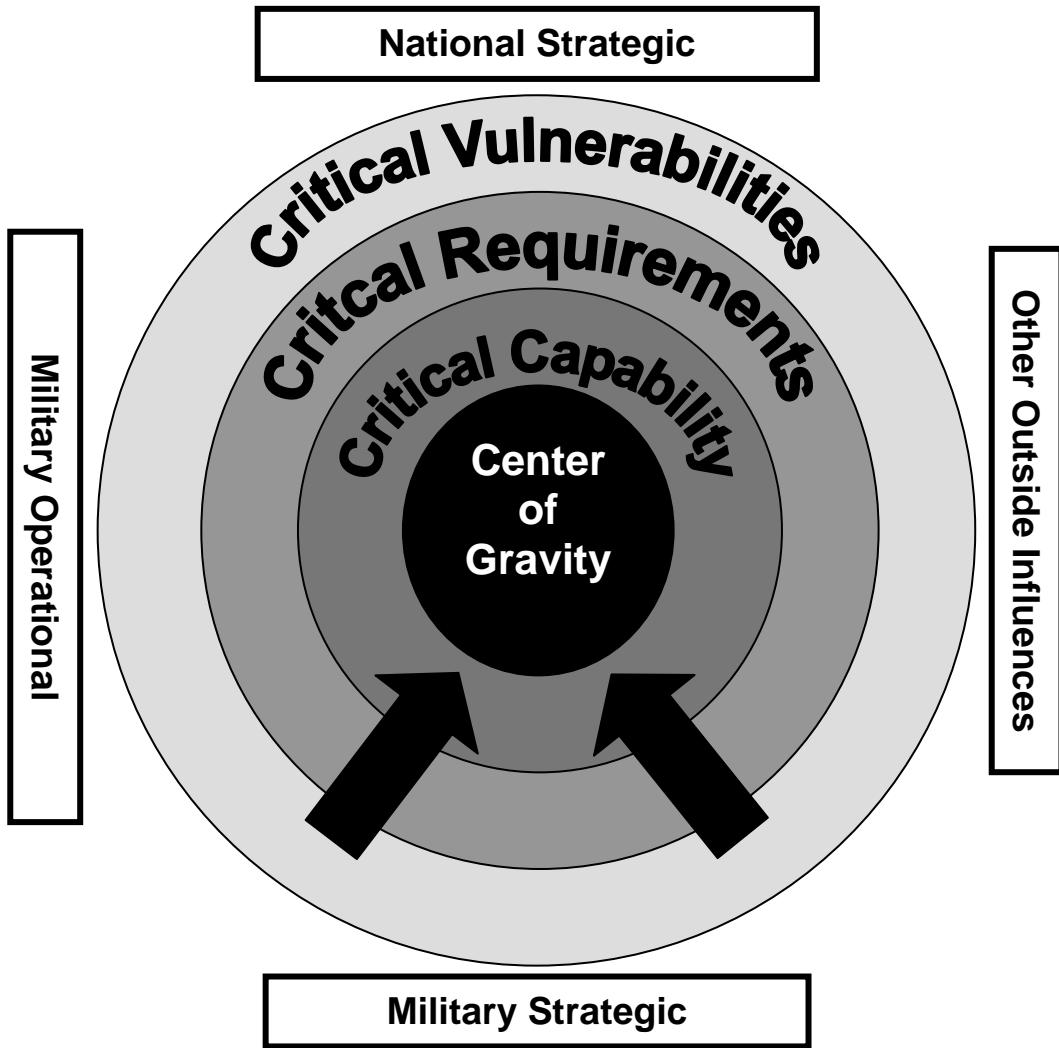


Figure 1. Operational Planning Model

The operation planning model consists of the following six steps:

1. Analyze and determine the national strategy objectives.
2. Develop military strategy objectives from the national strategy.
3. Convert the strategic objectives to operational objectives.
4. Apply the operational planning model.

5. Determine assets available.
6. Apply assets available against tactical targets.

#### Step 1: Analyze and Determine the National Strategy Objectives

The operational planning model may be applied to any strategy. Consequently, when utilizing the model in Indonesia it is imperative that the United States national and political strategic level objectives are clearly defined by senior military and political leaders. Whether it is Usama Bin Laden laying out his strategic objectives to “Kill the Americans” in his 1998 Fatwah (Bin Laden 1998) or George Bush issuing the *NSS*, this model will work to focus the military planner on their country’s national objectives.

The political leaders of the United States have clearly determined the national strategic objectives. The Congress of the United States requires the President to produce his strategy every two years. President Bush published the “*NSS*” in 2006. On the first page of the document, President Bush clearly lays out nine strategic objectives. They are:

1. Champion aspirations for human dignity.
2. Strengthen alliances to defeat global terrorism and work to prevent attacks against us and our friends.
3. Work with others to defuse regional conflicts.
4. Prevent our enemies from threatening us, our allies, and our friends with weapons of mass destruction.
5. Ignite a new era of global economic growth through free markets and free trade.

6. Expand the circle of development by opening societies and building the infrastructure of democracy.
7. Develop agendas for cooperative action with other main centers of global power.
8. Transform America's national security institutions to meet the challenges and opportunities of the twenty-first century.
9. Engage the opportunities and confront the challenges of globalization (White House 2006b, 1).

Obviously, many of these objectives are difficult to translate into an operational-level military campaign. A quick review shows that the United States military can support all nine of President Bush's national level strategic objectives. When planning, the planner will need to remember all nine principles and apply them as required.

#### Step 2: Develop Military Strategy Objectives From the National Strategy.

The principal function of the strategic planner is to provide "strategic guidance and direction to the Armed Forces of the United States for security cooperation planning, joint operation planning, and force planning" (Chairman, Joint Chiefs of Staff 1995, 1). Strategic planning occurs primarily at the national and theater strategic levels to help the President, Secretary of Defense, and other members of the National Security Council "define political and military objectives and end states, develop strategic concepts and options, and allocate resources." At the national-strategic level, military strategy transmits the strategic guidance and direction of the President and Secretary of Defence

to the combatant commands, military services, and combat support agencies (Chairman, Joint Chiefs of Staff 1995, 1).

Military planners must take the national military strategy and translate this into an executable operational level military strategy. The United States military produces two documents that may be utilized: the *NDS* and the *NMSP-WOT*.

The *NDS* begins the transition from national strategic objectives to operational level objectives. Secretary Rumsfeld directs the military to execute the following objectives:

1. Secure the United States from direct attack
2. Secure strategic access and retain global freedom of action
3. Strengthen alliances and partnerships
4. Establish favorable security conditions (Department of Defense 2005, iv).

The *NMSP-WOT* further refines the national strategic objectives:

1. Deny terrorists what they need to operate and survive
2. Enable partner nations to counter terrorism
3. Deny weapons of mass destruction proliferation, recover and eliminate uncontrolled materials, and increase capacity for consequence management
4. Defeat terrorists and their organizations
5. Counter state and nonstate support for terrorism in coordination with other US Government agencies and partner nations
6. Contribute to the establishment of conditions that counter ideological support for terrorism (*NMSP-WOT* 2006, 4).

### Step 3: Convert the Strategic Objectives to Operational Objectives

Converting strategic objectives into operational objectives is the essence of the operational planning model. The military planner takes the national strategy and the military strategy and begins to digest these objectives into executable operational level objectives. The planner determines the opponent's CoG as well as the United States' CoG. As part of the process of determining the CoG, the planner will also identify critical capabilities, critical requirements, and critical vulnerabilities of the identified CoG. The essence of determining CoG "lies in the identification of what's going to be decisive in a joint campaign and an understanding of what shaping operations are needed to achieve that decisive action" (Strange and Iron 2005b, 2).

### Step 4: Apply the Operational Planning Model

The operational planning model (figure 1) is based on the works of Dr. Strange. First, the planner must identify the enemy's CoG. There may be one or more CoG in each operation or campaign. When actually conducting planning, the military planner must consider both friendly and enemy CoGs. An accurate analysis of CoG allows the planner to determine what is going to be decisive in an operation and what shaping operations are necessary to be victorious in the campaign. The decisive operation is "the act that causes the culmination of the enemy, normally that which brings about the defeat of an enemy's operational or tactical center of gravity in a given campaign or military operation" (Strange and Iron 2005b, 2). The operational planning model uses four inter-related concepts described by Dr. Strange. These concepts are:

1. Centers of gravity (CoG): The physical or moral entities that are the primary components of physical or moral strength, power and resistance.
2. Critical capabilities: Every CoG has some primary ability (or abilities) that makes it a CoG in the context of a given scenario, situation or mission.
3. Critical requirements: Conditions, resources, and means that are essential for a CoG to achieve its critical capability.
4. Critical vulnerabilities: Critical requirements, or components thereof, that are deficient, or vulnerable to neutralization or defeat in a way that will contribute to a center of gravity failing to achieve its critical capability (Strange and Iron 2005b, 7).

Once each critical environment has been determined and identified, military planners can begin assigning effects and assets against the COG.

#### Step 5: Determine Assets Available

Once the COG has been dissected into its various critical parts, the operational planner must then determine his available assets or weapon systems. These assets will effect or attack each critical node. The asset may be lethal or nonlethal, and may not be a military asset. United Nation's Security Council action to destroy a country's economy with an economic embargo, may effect change just as effectively as a unilateral direct action mission against a high value target or CoG in the enemies' capital.

#### Step 6: Apply Assets Available Against Tactical Targets

Once the assets are determined, the critical nodes identified, the model can be fully utilized. The goal of this thesis is to determine how SOA assets will be employed against targets developed in Indonesia. See figure 2.

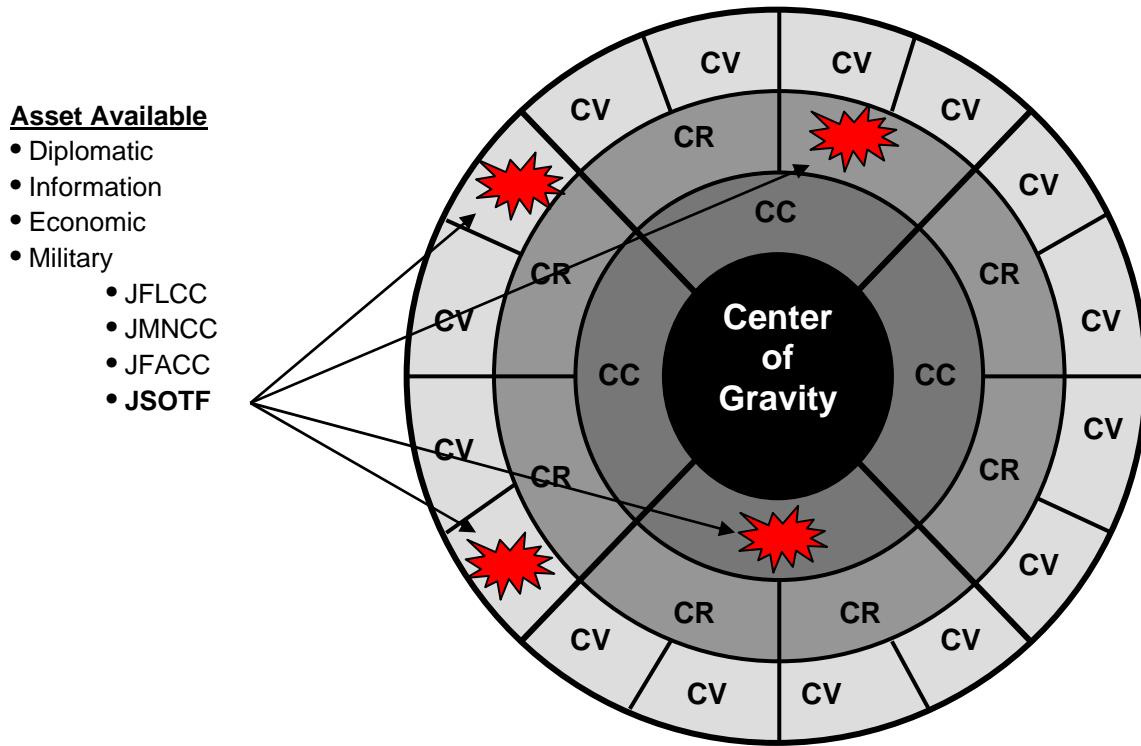


Figure 2. Operational Planning Model (With Critical Nodes)

### Feasibility and Suitability

Key to validating the research methodology is ensuring that it is feasible, suitable, and reliable. According to the JP 1-02, feasibility is: “The determination as to whether the assigned tasks could be accomplished by using available resources” (Chairman, Joint Chiefs of Staff 2006a, 203). Normally, planners assess the feasibility of a plan by matching available units to required tasks, determining what tasks do not have units assigned against them, and analyzing the operational risk of not accomplishing those tasks. In terms of this thesis, feasibility will assess if SOA has the means necessary to accomplish the tasks specified by the operational planning model.

Feasibility is the ability to accomplish the mission using available resources (Chairman, Joint Chiefs of Staff 2006a, 198). In other words, is special operations aimed at the correct objectives and does it comply with the military objectives of that campaign? The operational planning model will assess the feasibility of each special operations mission by analyzing how well it addresses the key tasks spelled out in the current and emerging doctrine.

The operational planning model will also address each asset's suitability. Suitability is defined as the “right type or quality for a particular purpose.” During each phase of the execution of the operational planning model, each asset will be looked at to determine the suitability of the assigned asset.

### Summary and Conclusion

The operational planning model combined with Dr. Strange’s CoG analysis framework will serve as the research methodology to determine the roles and missions of SOA in Indonesia. It will facilitate the research in chapter 4. In chapter 4, the operation planning model will be used to determine the answers to the thesis’ primary and secondary questions.

## CHAPTER 4

### RESULTS

#### Introduction

As the United States continues to engage terrorists in Iraq and Afghanistan, the United States must also remain engaged throughout the world. Admiral Fargo, Commander of the United States Pacific Command, is well aware of this. In 2004 he stated, “we [the United States] are just now gaining a full understanding of just how much the world has changed and how our center of gravity is shifting toward Asia and the Pacific” (Fargo 2004). Truly, the United States is engaged in a GWoT; the country is actively fighting violent Islamic extremists and other insurgent groups throughout the Middle East and Southwest Asia. While active combat continues in the Middle East, the United States is slowly transitioning its focus towards Southeast Asia, particularly Indonesia in support of the GWoT.

SOA has provided critical capabilities to the United States thus far in the GWoT. In fact, the utilization of SOA, particularly in Afghanistan, Iraq, and the Philippines, has demonstrated that the unique capabilities provided by SOA have the potential to play a significant role in any future operations in Indonesia. This chapter explores what role SOA might play in the GWoT in Indonesia.

Secretary Rumsfeld summed up the military’s need to determine its future roles and capabilities in the GWOT like this:

Today, we’re not competing with our major armies, navies or air forces. It’s an unconventional conflict. It is irregular warfare. It is asymmetric and the battleground is not so much out there, it is here. It is a matter of will. It is a matter of the public’s attitudes about these things. Instead of the center of gravity where the naval war is being fought, the center of gravity is in the capitals of cities of

nations all across the world and therefore we are going to simply have to figure out ways to get arranged to cope with that. Because it's a totally new environment and a very difficult one. (Rumsfeld 2006)

The military, and consequentially SOA, must adapt to this difficult “new environment.”

This chapter determined the potential adaptations by determining the role of SOA in this new and difficult military environment.

The chapter begins with an analysis of the terrorist threats in Indonesia. The chapter explores the three active terrorist organizations with global reach operating inside of Indonesia: al-Qaeda, Abu Sayyaf, and the JI terrorist groups. The analysis ties al-Qaeda to the Abu Sayyaf and the JI. Next, the analysis determined the JI CoG. Once the CoG is determined, the operational planning model will be utilized to analyze their CoG. The model allows JI’s critical capabilities, critical requirements, and its critical vulnerabilities to be analyzed. After identifying the JI’s CoG, critical capabilities, critical requirements, and critical vulnerabilities, the operational planning model was utilized to determine which missions SOA should utilize to defeat the JI. Next the answers to the four secondary questions are determined. These questions are: What is the role of fixed-wing SOA? What is the role of rotary wing SOA? What is the role of SOA unmanned vehicles? What is the role of SOA FID? Utilizing the operational planning model coupled with Dr. Strange’s CoG analysis theories and armed with the roles and missions of SOA allowed the primary research question to be answered: What is the role of SOA in support of the United States’ military objectives in the GWoT in Indonesia?

## Threat Analysis or Intelligence Preparation of the Battle

The terrorist threat to the United States and its allies in Indonesia must be understood. The threat analysis focused on the three major global terrorist or violent extremist organizations operating in Indonesia. The major Islamic terrorist organizations with international ambitions inside of Indonesia are: al-Qaeda, Abu Sayyaf, and JI. These organizations represent the primary international terrorist groups operating inside Indonesia and throughout Southeast Asia.

Why have these groups been successful in Indonesia? Indonesia has four significant conditions or factors that currently exist within the country that allows Indonesia to be vulnerable to global terrorism and Islamic extremists. The four conditions in Indonesia that allow Islamic extremists to survive in Indonesia are: a large Muslim population, their archipelagic geography, a struggling government, and poverty.

Southeast Asia, particularly Indonesia, continues to struggle with the growing radicalization of Islam. Southeast Asia contains the top four largest Muslim populations in the world (in order, largest to smallest): Indonesia, India, Pakistan, and Bangladesh (Ressa 2003, 11). In fact, “more than 230 million--nearly 25 percent--of the world’s 1.2 billion Muslims live in Southeast Asia, influenced by its [Islam’s] history, traditions, and cultures” (Ressa 2003, 11). Indonesia’s large Muslim population, history, and poverty have provided the necessary conditions and opportunities to create a breeding ground for violent extremist organizations and global terror organizations like al-Qaeda, JI, and the Abu Sayyaf.

In February 2006, Secretary Rumsfeld defined the United States’ enemy in the GWoT. He said, “the enemy is a transnational movement of extremist organizations,

networks, and individuals--and their state and non-state supporters--which have in common that they exploit Islam and use terrorism for ideological ends" (*NMSP-WOT* 2006, 4). Certainly, if a large Islamic population is a primary factor in creating terrorists, Indonesia is an easy target for the exploitation of a well organized global Islamic extremist organization.

When determining the threat to Indonesia, the Islamic religion by itself is not reason enough to believe that Indonesia will be radicalized. Many countries in Southeast Asia are struggling to build government infrastructures and the appropriate governmental organization and systems required to maintain a functioning central government. Indonesia is no different. During the long transition to a strong "United States" or "Western Style" democratic system of government, there remains the constant potential for unrest within Indonesia. Popular unrest, discontent, and Indonesia's large Muslim population combined with Indonesia's governmental challenges creates the conditions that allows "seams" and or "gaps" to form within the Indonesian society. These gaps can easily be exploited by international terrorist groups.

Geography is one of the many potential Indonesian governmental challenges, "geography makes effective border controls problematic for archipelagic states like Indonesia and the Philippines" (Department of State 2006, 60). Again, geography plays a significant role in the development of terrorist organizations. Consequently, Indonesia is the "poster child" for geographic border issues. After all, Indonesia is an archipelago country made up of "17,508 islands (6,000 inhabited) which straddles the equator and occupies a strategic location astride and along major sea lanes from the Indian Ocean to Pacific Ocean" (Central Intelligence Agency 2006). Uncontrollable geography directly

contributes to the conditions that create the seams that are exploitable by violent extremist organizations.

Secretary Rumsfeld determined that terrorists use these seams and or gaps in the following ways: “extremists use terrorism to impede and undermine the political progress, economic prosperity, the security and stability of the international state system and the future of civil society” (*NMSP-WOT* 2006, 4). Thomas Barnett describes vulnerable countries throughout the world as the “nonintegrating gap.” He defines this gap as “regions of the world that are largely disconnected from the global economy and the rule sets that define its stability” (Barnett 2003). He concludes that Indonesia as well as most of Southeast Asia is in the nonintegrating gap. It is in this gap that the terrorists work most freely. In Indonesia, the gap creates potential “safe heavens” for violent extremist organizations. It is here, in the gap, that the GWoT is being fought.

The United States Department of State (DoS) has analyzed this phenomenon in Indonesia. They concluded in 2005, that Southeast Asia made significant progress towards closing the gap and creating a regional environment inhospitable to terrorists. However, they qualified these comments by saying:

Despite these steps forward, the October 1 [2005] triple suicide bombing attack on the Indonesian resort island of Bali demonstrated that the terrorist threat persists in Asia. In February, the Philippines suffered when three bombs went off almost simultaneously in different cities -- Manila, Davao, and General Santos City. Southeast Asia remained a major front in the global war on terror, and continued to be an attractive theater of operations for regional terrorist groups such as JI. (Department of State 2006, 60)

As discussed earlier, Indonesia has the type of environment that has the potential to create terrorists and foster their global organizations. Besides large Muslim populations, Indonesia struggles with basic governmental systems in all areas of the

country. Indonesia suffers from the tyranny of geography. Consequently, Indonesia is exposed to violent extremist organizations because of the existence of four significant factors. These factors leave Indonesia extremely vulnerable to global terrorism and Islamic extremist. As previously discussed, the conditions in Indonesia that allow Islamic extremists to survive in Indonesia are: large Muslim population, geography, weak or struggling government, and poverty.

### Overview of Indonesian Terrorist Organizations

Al-Qaeda was established by Usama bin Ladin in 1988 by Arabs who fought in Afghanistan against the Soviet Union. The group helped finance, recruit, transport, and train Sunni Islamic extremists for the Afghan resistance in the 1980s. Shortly after the founding of al-Qaeda, Usama Bin Laden began to expand his influence into Southeast Asia. “In 1988, he sent his brother-in-law Mohammed Jamel Khalifa to the Philippines to set up financial infrastructure of charities and other locations” (Ressa 2003, 10). This was only the beginning of al-Qaeda’s influence in Southeast Asia. The United States DoS identified al-Qaeda’s goals like this:

Al-Qaida’s goal is to unite Muslims to fight the United States as a means of defeating Israel, overthrowing regimes it deems "non-Islamic," and expelling Westerners and non-Muslims from Muslim countries. Its eventual goal would be the establishment of a pan-Islamic caliphate throughout the world. Al-Qaeda leaders issued a statement in February 1998 under the banner of “The World Islamic Front for Jihad against the Jews and Crusaders” saying it was the duty of all Muslims to kill U.S. citizens, civilian and military, and their allies everywhere. (Department of State 2006, 218)

Many of the JI’s leaders met and fought with Usama Bin Laden and early members of al-Qaeda during the Soviet resistance in Afghanistan in the 1980s. This early connection between al-Qaeda and JI leaders have led the United States DoS to conclude

al-Qaeda has a worldwide network which is augmented by ties to local Sunni extremists. al-Qaeda was originally based in Afghanistan with the help of the Taliban government. Following 11 September 2001, and the United States' swift destruction of the Taliban, al-Qaeda was forced to relocate. While the largest concentration of senior al-Qaeda members currently reside in Pakistan, the network incorporates members of al-Qaeda in Iraq and other associates throughout the Middle East, Southeast Asia, Africa, and Europe who continue working to carry out future attacks against U.S. interests" (Department of State 2006, 218). In Indonesia the primary al-Qaeda linked terrorists groups are the Abu Sayyaf Group and the JI.

The next active Indonesian terrorist group that must be discussed is the Abu Sayyaf Group. Abu Sayyaf Group is a violent Muslim terrorist group primarily operating in the southern Philippines with close ties to the JI. The Abu Sayyaf Group engages in kidnappings for ransom, bombings, beheadings, assassinations, and extortion. "The group's stated goal is to promote an independent Islamic state in western Mindanao and the Sulu Archipelago, areas in the southern Philippines heavily populated by Muslims" (Department of State 2006, 186). The Abu Sayyaf Group first arrived on the world stage in May 2001 when they kidnapped two American missionaries, Martin and Gracia Burnham (Burnham 2004, 1). This kidnapping played a significant role in the United States' entry into Operation Enduring Freedom-Philippines in January 2002. "A Philippine military hostage rescue operation in June 2002 freed U.S. hostage Gracia Burnham, but her husband Martin Burnham and Filipina Deborah Yap were killed" (Department of State 2006, 186). The Abu Sayyaf group is largely supported by Middle Eastern Islamic extremists, but also receives funding from regional terrorist groups such

as JI, whose operatives have provided training to Abu Sayyaf members and have likely facilitated at least some of the Abu Sayyaf's terrorist attacks (Department of State 2006, 186). Today, it is widely acknowledged that the Abu Sayyaf group and JI work together. JI members routinely travel to the Island of Mindanao in the Philippines to train in Abu Sayyaf run and led terror training camps. As further evidence of the tie between the organizations, there are two fugitive "Bali bombers" that are believed to be housed and supported by the Abu Sayyaf on Mindanao. Certainly, the JI and the Abu Sayyaf work closely together. It is the nature of living on either end of the Sulu Archipelago.

The final group and al-Qaeda's greatest ally in Indonesia is the JI. As evidence of al-Qaeda and JI close working relationship, the Congressional research service concluded that JI operatives are known to have assisted two of the 11 September 2001 hijackers (Vaughn et al. 2005, Summary Page).

JI is an Islamic extremist group that "seeks the establishment of an Islamic caliphate spanning Indonesia, Malaysia, southern Thailand, Singapore, Brunei, and the southern Philippines" (Department of State 2006, 203). The DoS obviously arrived at the same conclusions as the DoD. "The JI is a transnational movement of extremist organizations, networks, and individuals . . . which have in common that they exploit Islam and use terrorism for ideological ends" (*NMSP-WOT* 2006, 4). The JI was originally established in Indonesia as a loose confederation of several Islamic groups. However, over time, al-Qaeda's presence in the region has had the effect "of professionalizing these local groups and forging ties among them--and between them and al-Qaeda" (Vaughn et al. 2005, 5).

The origins of the JI began in the 1960s, when its cofounders, clerics Abu Bakar Baasyir and Abdullah Sungkar, began demanding the establishment of *sharia* law in Indonesia (Vaughn et al. 2005, 7). The two men established Al Mukmin, a boarding school in Solo, on the main island of Java, that preached the “puritanical Wahhabi interpretation of Islam founded and propagated in Saudi Arabia” (Vaughn et al. 2005, 7). Many suspected JI activists who have been arrested are Al Mukmin alums. In 1985, Baasyir and Sungkar fled to Malaysia, where they set up a base of operations and helped send Indonesians and Malaysians to Afghanistan, first to fight the Soviets and later to train in al-Qaeda camps. They began recruiting people from Indonesia, Malaysia, Singapore, and the Philippines. It is here that the group officially named itself JI. “Sungkar and Baasyir formed JI in 1993 or 1994, and steadily began setting up a sophisticated organizational structure and actively planning and recruiting for terrorism in Southeast Asia” (Vaughn et al. 2005, 7). Many of the connections that define the global network of Islamist groups that exists today, including those between al-Qaeda and JI, were made during the conflict in Afghanistan.

Reenforcing the importance of a strong government, the fall of Indonesia’s dictator, Haji Mohammad Suharto, in 1998 provided a major boost to JI. Almost overnight, formerly restricted Muslim groups from across the spectrum were able to operate essentially in the open as Indonesia transitioned from a restrictive dictatorship to a new democracy. As a result, Baasyir and Sungkar returned to Solo, preaching and organizing in relative openness (Vaughn et al. 2005, 7). Hambali returned also, went underground and began recruiting a new generation of JI members. Simultaneously, Jakarta’s ability to maintain order in Indonesia’s outer islands decreased dramatically,

and long-repressed tensions between Muslims and Christians began to erupt. In 1999 and 2000, the outbreak of sectarian violence in Ambon (in the Malukus) and Poso (on Sulawesi) provided JI with critical opportunities to recruit, train, and fund local mujahadeen fighters to participate in the sectarian conflict. Here hundreds would die. After the violence concluded, it is thought that many of these jihadis joined Baasyir's network and became active members of the JI. In 2000, the network carried out bombings in Jakarta, Manila, and Thailand (Vaughn et al. 2005, 8).

With the rise of the JI and the fall of the Suharto's regime, the JI's goals continued to grow. In fact, Hambali desired a large Islamic caliphate to be established across Southeast Asia. This caliphate would include the countries of Indonesia, Malaysia, Singapore, Thailand, the Philippines, Brunei, and Cambodia. This state would have a population of about 420 million. More importantly, the caliphate would control the South China Sea shipping lanes which are the gateway between Asia and the Indian Ocean including the straits of Malacca. The caliphate would also control a huge piece of airspace. Control of this airspace would potentially affect trade and foreign relations between India, China, Africa, and Australia all extremely important to the United States.

In January 2000, Islamic cleric Hambali, al-Qaeda's point man in Indonesia, hosted in Malaysia, Nawaf Alhzmi and Khalid al-Midhar, the two hijackers who would later take part in the 11 September 2001 terror attacks in the United States. JI kept a low profile in Malaysia and its existence only became public after the Bali bombings.

JI operations include the group's most recent high-profile attack in Bali on 1 October 2005 which left approximately twenty-two persons dead. JI has also conducted numerous other attacks including the September 2004 bombing outside the Australian

Embassy in Jakarta, the August 2003 bombing of the J. W. Marriott Hotel in Jakarta, and the October 2002 Bali bombing. “The 2002 Bali attack, which killed more than 200, remains one of the deadliest terrorist attacks since 9/11” (Department of State 2006, 204).

JI is not only operating in Indonesia, they are also active throughout Southeast Asia. JI has been targeting the United States and its allies throughout the region. In June 2003, authorities disrupted a JI plan to attack several Western embassies and tourist sites in Thailand. In December 2001, Singaporean authorities uncovered a JI plot to attack the United States and Israeli Embassies and British and Australian diplomatic buildings in Singapore. JI is also responsible for the coordinated bombings of numerous Christian churches in Indonesia in December 2000 and was involved in the bombings of several targets in Manila the same month. Finally, JI also provided operatives to al-Qaeda for its 2002 plot to use airliners for attacks on targets in the United States (Department of State 2006, 204). Clearly, the JI is a violent extremist organization with global reach and desire. JI is certainly the most dangerous Islamic terror organization in Southeast Asia.

#### Center of Gravity Analysis

In order to understand JI, it is important to know that the JI “seeks the establishment of an Islamic caliphate spanning Indonesia, Malaysia, southern Thailand, Singapore, Brunei, and the southern Philippines” (Department of State 2006, 203). To accomplish this mission, the JI has adopted a “violent extremist ideology” that exploits Islam and utilizes terror as its primary tactical weapon. How does the United States defeat this deadly objective?

To defeat an enemy, its adversary must understand the enemy’s inherent strengths and weakness. For operational level planners within the United States military this means

determining and defining the enemy's CoG. Once the CoG is determined, military planners must determine the best course of action to defeat and eliminate the threat. As discussed in chapter 3, Dr. Joe Strange has developed an excellent theory to determine the enemy's CoG. Dr. Strange's theory allows planners to determine the JI's CoG, its critical capabilities, its critical requirements, and critical vulnerabilities. Once the JI's critical vulnerabilities are determined, operational planners can then assign assets utilizing the operational planning model to attack and destroy the enemy.

Joint doctrine describes CoG as the “agents or sources of moral or physical strength, power, and resistance--what Clausewitz called ‘the hub of all power and movement, on which everything depends . . . the point at which all our energies should be directed’” (Chairman, Joint Chiefs of Staff 2006b, GL-8). Carl Von Clausewitz in his book, *On War*, argued that in war, it is a wasteful exertion to use military force or other elements of national power in ways that do not contribute to imposing your will on the enemy's CoG or sustaining your own source of power and strength” (1984, 596-597). Consequently, prior to assigning any assets against JI, its CoG must be determined and defined. Once the CoG is defined utilizing Dr. Strange's theory, the CoG can be operationalized with the operational planning model.

To determine the enemy's CoG a good question to ask about the enemy CoG candidate is “whether imposing our will on it [the enemy's CoG] will create the deteriorating effect that prevents our foe from achieving his aims and allows the achievement of our own in a sufficiently decisive way” (Keepler 2005, 7). Consequently, it is extremely important to operational planners to determine where the United States needs to direct its national power and will. Once JI's CoG is determined and defined, a

thorough analysis of the JI CoG can be executed and operational plans developed to defeat and destroy the JI by destroying their CoG.

Analyzing the JI, there are three potential CoG candidates. The first candidate as the JI CoG is its senior leadership; the second JI CoG candidate is the “will” or “support” for its organization by the Indonesian populist, and the third JI CoG candidate is the extremist ideas and philosophies of radical Islam exposed by the JI. Which CoG should the United States direct all of its assets and energies towards to defeat the JI?

#### Jamaah Islamiah’s Senior Leadership

The general perception of the current prosecution of the United States’ GWoT lends significant weight to the idea that the JI’s CoG is its senior leadership. Daily in the United States news media, the GWoT focus is on the military’s progress in capturing or killing the senior leadership of al-Qaeda and their associated terror organizations; men like Osama Bin Laden and al-Zawahiri or Iraqi leaders like Al-Zarqawi and Al Sadr are representative of the perceived CoG for all global focused terrorist organizations. Dr. Jack Kem argues that the CoG for any Islamic Terrorist organization (like the JI) is al-Qaeda and Usama bin Laden. Usama bin Laden or the Middle Eastern terror groups centered on al-Qaeda. This is the core; these are the “physical or moral entities that are the primary components of their physical or moral strength, power and resistance” (2006, 20). Consequently, it is natural to begin the analysis of the JI’s CoG with its senior leadership.

Since the founding of the JI in the late 1970s, the organization has essentially only had two men serve as the “Amir of JI,” its most senior religious leader. However, during this time, the JI has also had multiple military or Jihadist leaders. Importantly, three

different leaders (either religious or Jihadist) have served as the overall leader of the JI since 11 September 2001. Essentially, in the last five years, the JI has survived at least three significant changes in senior leadership. Even with these changes the JI remains an effective extremist group. Therefore, its leadership is not their CoG.

Abdullah Sungkar was the founder of JI and served as the first Amir of the JI. He and Abu Bakar Ba'asyir fled to Malaysia in 1985. Sungkar lived in and directed the JI from Malaysia until his death in 1999 (International Crisis Group 2006, 22). Upon the death of Abdullah Sungkar, Abu Bakar Ba'asyir the cofounder of JI, as well as his good friend, succeeded him as Amir of JI. In fact, Ba'asyir still serves in that capacity today. However, his tenure as the Amir has been interrupted by continuous pressure from the Indonesian government. For example, in October 2002, he was arrested and sentenced to four years in jail. Then after an early release, he was arrested again in 2004 and remained in prison until 2006. However, even with the constant harassment and imprisonment of the JI's senior leadership by the Indonesian government, Ba'asyir has continued to conduct successful operations. During his initial three years as Amir, he presided over the Christmas Eve Bombings in 2000. These bombing involved multiple terror attacks against Indonesian Christian churches, which killed eighteen people, but ultimately lead to Ba'asyir's arrest and successful prosecution (BBC 2003).

As a result of the Christmas Eve bombings, Abu Bakar Ba'asyir was arrested in October 2002. In April 2003, he was formally charged with treason, immigration violations, and providing false documents and statements to the Indonesian police. While Ba'asyir worked his way through the Indonesian legal system, eventually resulting in his release, he planned and executed the bomb attacks on the J. W. Marriott Hotel in the

Indonesian capital of Jakarta on 5 August 2003, which killed another fourteen people.

Finally, on 15 October 2004, he was arrested again by the Indonesian authorities and charged with involvement in the J. W. Marriott bombing in Jakarta. He remained incarcerated until June of 2006 (International Crisis Group 2006, 22).

While Abu Bakar Ba'asyir was struggling through the Indonesian legal system, JI's most famous leader Hambali was gaining strength. He rose through the ranks and emerged as the leader of the militant wing of the JI. Hambali was often described as "the Osama bin Laden of Southeast Asia." Some media reports describe him as Bin Laden's lieutenant for Southeast Asian operations (BBC 2006). Other reports describe him as an independent peer of Bin Laden. Either way, he was highly trusted by al-Qaeda and was the main link between the two organizations, clearly demonstrating the international flavor that the JI has developed. In fact, Hambali was a close friend of Khalid Shaikh Mohammed, who planned the 11 September 2001 terrorist attacks against the United States and then assisted in the planning of the Bali nightclub bombings.

On 6 September 2006, President Bush announced the transfer of multiple terrorists from the custody of the United States' Central Intelligence Agency to the military detention facility at Guantanamo Bay, Cuba. One of these detainees was Hambali, the current military leader of the JI (White House 2006a); once again demonstrating that killing or capturing the JI's senior leadership has only a marginal impact on their operations.

Following the arrest and imprisonment of Hambali, Noordin has begun to emerge as the new leader of the militant wing of the JI. As with previous JI leaders, the Indonesian government has continued to apply continuous pressure on Noordin. In fact,

“The Indonesian police are closing in on Noordin Mohammed Top, South East Asia’s most wanted terrorist” (International Crisis Group 2006, 2). For four years, Noordin tapped into the established Jihadist networks to build a following of diehard loyalists. Now with the current imprisonment of Hambali and Ba’asyir, Noordin has begun to take the lead of JI.

As has been shown, regardless of the location and status of the JI’s religious and militant senior leaders, extremist attacks have continued to occur. The JI remains an effective organization even as many of its senior leaders are in exile, prison, or even dead. Therefore, the only conclusion that can be drawn is that the JI senior leadership plays an important role in the overall success of the JI, but they are clearly not the CoG of the JI.

#### Will and Support

The next candidate for the JI’s CoG is the “will” and “support” JI receives from the Indonesian people. Assuming that the population of Indonesia no longer has the will or ability to provide aid, comfort, and support to the JI terrorist organization: Will this lack of support create the conditions that would lead to the defeat the JI movement? Will the attacks in Bali, the attacks in Jakarta, or any number of other attacks throughout Southeast Asia stop? The answer is a resounding no! JI is clearly a transnational terrorist organization that recruits from across Southeast Asia, particularly in the Philippines, Indonesia, and Malaysia, and many other countries throughout the world. Similar to defeating the senior leadership, breaking the will of the Indonesian people will not destroy the JI’s “hub of all power and movement, on which everything depends.” Consequently, the will of the people is not the Jamaah Islamiah’s CoG.

### **Violent Extremist Ideology**

The final candidate for the JI's CoG is the "violent extremist ideology" associated with JI's view of Islam. This candidate is the most difficult to define and ultimately to measure. To frame the issue, one question must be asked, if the violent extremist ideology disappeared tomorrow, would the JI movement end? The answer to that question is a resounding yes! If there is no violent extremist ideology, then there are no violent extremist organizations exploiting Islam. With no violent extremists, there are no violent attacks. If there are no violent attacks, then the United States wins the GWoT. In essence, if the JI's violent extremist ideology was defeated tomorrow, the GWoT would be over (at least in Indonesia). Obviously, the hub of JI's power, that element that everything depends on is its violent extremist ideologies which exploit Islam. In fact, Brigadier General Mark T. Kimmitt, Deputy Director, Plans and Strategy, (J5), US Central Command, described terrorist organization's CoG in a recent speech this way, "It is a group that may not be hierarchically bound together the way a military is, but certainly networked together with the center of gravity being this radical extremist ideology that binds them together" (Kimmitt 2006). This assessment of JI's CoG is consistent with the Bush administrations assessment of the global enemy the United States is facing in the GWoT. The enemy is a "transnational movement of extremist organizations, networks, and individuals which have in common that they exploit Islam and use terrorism for ideological ends" (*NMSP-WOT* 2006, 4).

Unfortunately for the United States, the violent ideology utilized by the JI represents a "moral" CoG, and not a physical CoG. A moral CoG, is extremely dangerous. In fact, Clausewitz described it like this:

The moral elements are the most important in war. They constitute the spirit that permeates war as a whole, and at an early stage they establish a close affinity with the will that moves and leads the whole mass of force. . . . History provides the strongest proof of the importance of moral factors and their often incredible effect. (1984, 184-185)

Consequently, it is extremely important that military planners identify the correct enemy, its CoG, and an appropriate plan to defeat the enemy before it moves and leads the whole mass of force against the United States. Clearly, the JI's CoG is its violent extremist ideology. This is the CoG that operational planners must focus all its efforts.

With the JI's CoG identified and defined as the violent extremist ideology utilized by the JI, the JI is now vulnerable to a well planned attack by the United States and its massive resources, both civilian and military. Dr. Strange's CoG analysis requires JI's CoG to be dissected into smaller elements that can more easily be attacked or destroyed by the different elements of the United States' national power.

Remember, the United States military describes CoG as the “physical or moral entities that are the primary components of physical or moral strength, power, and resistance” (Chairman, Joint Chiefs of Staff 2006b, iv-10). The CoG does not just contribute to the enemies’ strength; the CoG is the strength. Unfortunately, the JI’s CoG, its violent extremist ideology is impossible to completely eradicate. Therefore, the CoG must be dissected into smaller portions which will eventually serve as decisive points. Dissecting JI’s CoG, requires the CoG to be broken down into smaller objectives that can be planned against and then systematically attacked. In order to conduct operational planning, the identification of the decisive action and understanding what operations are needed to achieve that decisive action are critical to mission success. Dr. Strange’s model

describes three interrelated aspects of a CoG: critical capabilities, critical requirements, and critical vulnerabilities.

### Critical Capability

Dr. Strange argues that, “every center of gravity has some primary ability (or abilities) that makes it a center of gravity in the context of a given scenario, situation or mission” (Strange and Iron 2005b, 7). Essentially, what does the JI’s CoG allow it to do to the United States? These abilities are called the critical capability. The JI’s violent extremist ideology can attack and cause harm to the United States in its flight in the GWoT in two distinct ways. These critical capabilities are JI’s ability “to attack friendly governments and their interests” and JI’s ability to “frame the conflict within their area of operations,” essentially all of Southeast Asia (see figure 3).

By definition, critical capabilities can attack or destroy targets. Critical capabilities also allows a force to seize an objective. The JI’s critical capabilities also prevent the United States from achieving ultimate success in the GWoT. Dr. Jack Kem simplifies the definition of critical capabilities as the ways the enemy may “accomplish the objectives or end state” (2006, 46). The JI’s CoG, its extremist ideology, sets the conditions which could allow JI to create its new caliphate. The critical capabilities needed to create the caliphate are its ability to attack friendly governments in the region and its ability to frame the argument (United States versus Islam), and finally, its ability to attack the United States’ interests in Southeast Asia. Certainly, these critical capabilities empower JI’s CoG.

# JI Center of Gravity Analysis

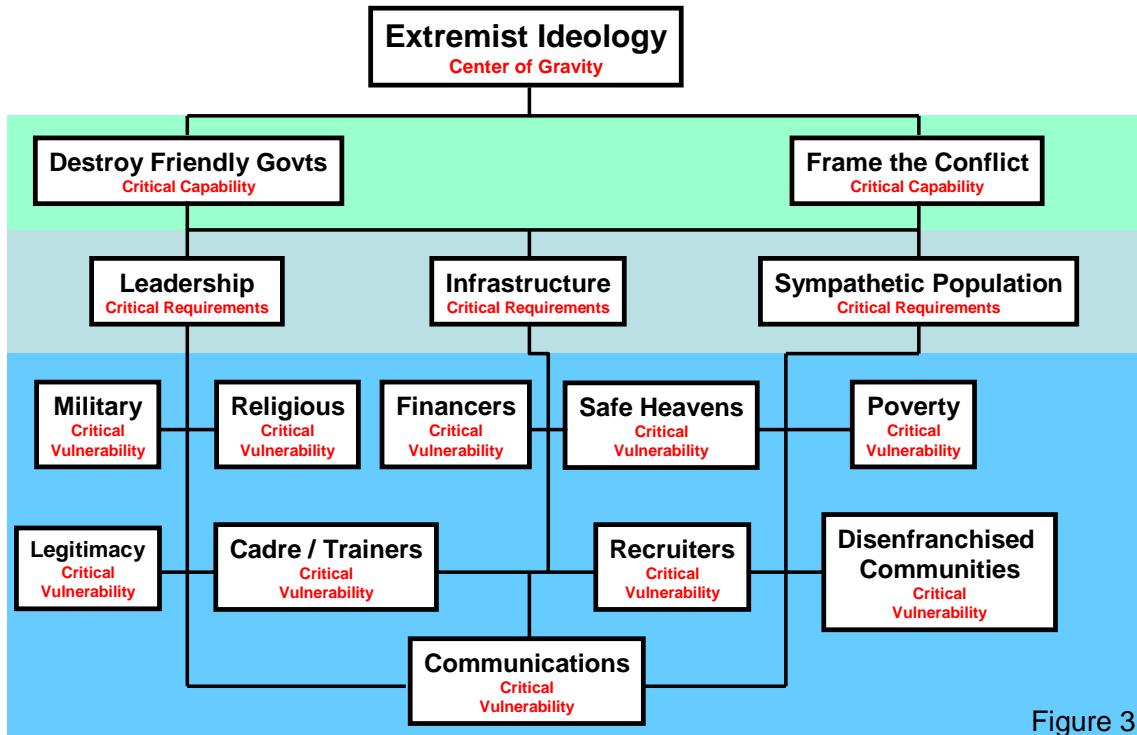


Figure 3. Jemaah Islamiah Center of Gravity Analysis

## Attack Friendly Governments

The JI's critical capability to "attack friendly governments and their interests," is directly linked to and supports the JI's CoG. For example, the JI's operations against friendly governments include the group's high-profile attack in Bali on 1 October 2005 which left approximately twenty-two persons dead. The JI also conducted numerous other attacks including the September 2004 bombing outside the Australian Embassy in Jakarta and the October 2002 Bali bombing. "The 2002 Bali attack, which killed more than 200, remains one of the deadliest terrorist attacks since 9/11" (Department of State

2006, 204). These bombings were directly aimed at friendly western government's interests, particularly the country of Australia. Australia and the United Kingdom have arguably been the United States' strongest allies in the GWoT. Had the deaths of approximately 200 Australian citizens been enough to persuade the Australia government to pull out of the United States led coalition in the GWoT, the JI, and by default, their global partners' al-Qaeda would have won a tremendous strategic victory against the United States in the GWoT. To successfully defeat JI's violent extremist ideology the United States and its allies must be able to prevent these types of attacks.

#### Frame the Conflict

The next critical capability of JI's CoG is its ability to "frame the conflict within its area of operations." JI has the advantage of being able to take the conflict to the people, first with its ideology and, if that fails, then with terror. The JI is able to frame the conflict in its madrassa, in its mosques, over the airways on sympathetic news media, both legitimate and illegitimate, and in the streets of disenfranchised communities throughout Indonesia and Southeast Asia. They are not bound by the truth as are the United States and its allies. The JI may spread propaganda however they see fit. They may bend the truth and even use completely fabricated lies to frame the conflict as essentially the United States versus Islam. Having the conflict framed as the United States versus Islam allows JI to further spread its ideology--further strengthening the JI's CoG. Next, if the JI fails to make its case through peaceful means, the JI may also frame the conflict with well planned and executed terror attacks as well as threats of retribution if the population does not sympathize with their extremist ideology. Each time the JI

executes another terrorist attack, it allows the JI to frame the conflict and achieve its goals by manipulating the Indonesian people's perceptions of its Islamic religious duty.

Now that the JI's CoG has been identified, and its critical capabilities linked to the CoG, the question still remains, how does the United States defeat the JI? Once again Dr. Strange provides vital insight into how to defeat the enemy. Dr. Strange suggests that all critical capabilities have specific "conditions, resources and means that are essential for a center of gravity to achieve its critical capability" (Strange and Iron 2005b, 7). Dr. Strange calls this the "critical requirement." Finally, it is here at the enemy's critical requirements that operational planners can begin targeting the enemy with the intent of defeating JI's CoG and thus defeating the entire extremist organization and network.

The analysis of the JI's CoG determined that the critical capabilities have the same three critical requirements (see figure 3). These critical requirements are the JI's senior leadership, its infrastructure which allows JI to operate, and the sympathetic population that allows JI to exist. Once these critical requirements have been identified, then critical vulnerabilities can be identified for each requirement. A critical vulnerability is a component of the critical requirement "that are deficient, or vulnerable to neutralization or defeat in a way that will contribute to a center of gravity failing to achieve its critical capability" (Strange and Iron 2005b, 8). Obviously, critical requirements and its associated critical vulnerabilities are inherently linked together. Thus each critical requirement and its corresponding critical vulnerabilities will be analyzed and discussed together.

The JI's critical requirement for senior leadership seems obvious. Every successful organization requires strong senior leadership to thrive and prosper. JI is no

exception. The JI's leadership provides guidance, motivation, and focuses ideas and efforts linking its violent extremist ideology to the people of Indonesia. They create shared purpose and direction. Charismatic leadership inspires those inclined to join the Jihad and recruit friends and sympathizers to the movement. The leadership also inspires support for extremist activities. The elimination of key leaders within the JI has the potential to severely cripple the organization and is a key component to the ultimate destruction of the JI. There are five identified critical vulnerabilities within JI's senior leadership. Each of these vulnerabilities represents potential targets at the operational level.

As discussed earlier, JI's senior leadership is not the CoG. However, it is a critical requirement for the success of the ideology. Without strong leadership the spread of the violent ideology is severely crippled. This relationship exists with all three critical requirements. The CoG depends on all three of the critical requirements to be successful. If one of the critical requirements is destroyed, then the other two critical requirements create the conditions that allow the regeneration of the destroyed critical requirement. For example, if the senior leadership is completely destroyed, then the sympathetic population combined with their existing infrastructure will allow the creation of new leaders. This is true regardless of which critical requirement is destroyed. Consequently, all critical requirements must be attacked simultaneously by attacking the critical vulnerabilities.

## Senior Leadership.

The JI's senior leadership has multiple critical vulnerabilities. This includes the military and religious leadership component within its organization. Consequently there are two separate and distinct leadership nodes that should be targeted.

Another significant critical vulnerability to JI's leadership is its legitimacy in the eyes of the Indonesian people, in the eyes of fellow terrorist groups, and in the eyes of the world community. JI's leadership can be marginalized by directly placing key leaders in constant jeopardy (utilizing military and law enforcement assets). The Indonesian government has been reasonably successful accomplishing this thus far. This constant pressure, arrest, and incarceration of JI's senior leadership, and the general harassment of these organizations has the potential to prevent leadership replacements, deter foot soldier recruitment, and in general degrade the leadership's stature and influence within the organization and the Indonesian population. This constant pressure also prevents the JI's senior cadre and their military and religious trainers from operating in the open, thus reducing its organization's overall effectiveness. The final vulnerability is JI's ability to communicate with each other, with its potential recruits, and with other extremist organizations who share its common goals. When its communications are shutdown, most of the organizational functions, including any pending operations, are in jeopardy of failure. Clearly, dissecting JI's critical requirement for leadership into its five critical vulnerabilities allows operational planners to more easily attack JI and its violent extremist ideology.

## Infrastructure

The JI, similar to any other large organization, depends on a significant infrastructure to conduct operations and run its organization. The need for this infrastructure is the JI's second critical requirement. Its infrastructure has five significant vulnerabilities. The JI's infrastructure vulnerabilities include its safe heavens, its financers, its recruiters, its cadre and trainers, and its ability to communicate within and outside the organization.

The JI's infrastructure depends on its facilities, especially the facilities required to recruit and train new operatives. Organizations, such as sympathetic Islamic institutions, fundamentalist or religious schools (Madrassa's), potentially sympathetic nongovernmental organizations, and the will of the people all provide the potential to "destroy something, seize an objective, or prevent [the United States] from achieving a mission" (Kem 2006, 46). It is these forces that create the safe heavens that allow the JI to exist. To defeat JI's infrastructure, operational planners need to focus on these five critical vulnerabilities. The financers, safe heavens, cadre and trainers, recruiters, and communications all must be targeted to destroy the JI. Many of the critical vulnerabilities overlap with the leadership critical requirement's critical vulnerabilities. Fortunately, this provides operational planners the ability to prioritize operations in the area of responsibility. Attacking JI critical vulnerabilities that influence two critical requirements is obviously the best use of limited resources and should provide the most bang for the buck.

## Sympathetic Population

Finally, the JI have a critical requirement for a sympathetic population. That population currently thrives in Java, the original home of Ba'asyir and Sungkar (International Crisis Group 2006, 2). In fact, many of the new recruits are religious “disciples of Ba'asyir and Sungkar” (Sageman 2005). To create and support a sympathetic population, the JI needs to identify disenfranchised communities where the vast majority of the population is alienated from the mainstream society and feel cut off from cultural and social norms. It is here that the extremist's message spreads easily. This type of radicalism is often a political response to the deepening economic, social, political, and cultural crisis that exists within these communities. This leads to an area where extremist recruitment easily occurs, and if the radicalization of the population continues, it will lead to the creation of more safe heavens that JI can exploit. This vicious cycle is occurring, not just in Southeast Asia, but throughout the Muslim World. It has been argued that “rapid demographic growth, educational changes, and government policy failure are among the causes of high unemployment and increasing poverty, which, together with other forces, have alienated large sectors of Muslim youth (Richards 2003, V). Obviously, a sympathetic population is a critical requirement for the overall success of JI's CoG. Once again, many of the critical vulnerabilities overlap with other critical requirements. There are five critical vulnerabilities that should be targeted: poverty, safe heavens, recruiters, disenfranchised communities, and communications.

It is important to understand that the JI “seeks the establishment of an Islamic caliphate spanning Indonesia, Malaysia, southern Thailand, Singapore, Brunei, and the southern Philippines” (Department of State 2006, 203). To accomplish this mission, the

JI has adopted a violent extremist ideology that exploits Islam and utilizes terror as its primary tactical weapon. In order for the United States to defeat JI in the GWoT, the United States must focus all of its energies and efforts against JI's CoG, its violent extremist ideology. Utilizing Dr. Strange's CoG analysis model to determine JI's CoG, its critical capabilities, critical requirements, and critical vulnerabilities proves extremely valuable to operational planners when developing a plan to defeat JI.

### Research Questions

Special Operations Aviation: To understand the roles and missions of SOA one must first understand the missions conducted and executed by United States SOF. JP 3-05 defines SOF missions like this, “they perform tasks that no other forces in the DoD can conduct. Next SOF forces perform tasks that other forces in DoD conduct, but do so to a unique set of conditions and standards” (Chairman, Joint Chiefs of Staff 2003, II-3). The DoD tasks SOF with nine different mission sets or core tasks.

Special operating forces are specifically organized, trained, and equipped to accomplish the following nine core tasks: direct action, special reconnaissance, foreign internal defense, unconventional warfare, counterterrorism, counter proliferation of weapons of mass destruction, civil affairs operations, psychological operations, and information operations. These core tasks represent the collective capabilities of all SOF rather than those of any one unit. (Chairman, Joint Chiefs of Staff 2003, II-4)

The definition clearly states that these missions “represent the collective capabilities of all SOF rather than those of any one unit.” Therefore, SOA missions must be defined and then nested into the special operations core missions. These nine mission areas define the mission SOA will perform in support of the SOF core missions in order to attack and destroy the Jamaah Islamiah. Prior to completing the nesting of SOA’s unique capabilities, roles and missions into the nine core special operations missions, the four

secondary research questions must be answered. The capabilities, roles and missions of SOA are clearly defined in two separate military documents. The United States Air Force defines its roles and missions (primarily fixed-wing aircraft and UAVs) in Air Force Doctrine Document 2-7 (2005). The United States Army has encapsulated its doctrine for the utilization of special operations aircraft (rotary-wing aircraft only) in Field Manual (FM) 3-05.60. Both doctrinal manuals will be referenced continuously as each secondary research question is answered.

In order to fulfill the United States Special Operations Command directed tasks, explained above, the United States Air Force has organized, trained, and equipped their forces to support the following core missions (Department of the Air Force 2005, 8). These missions are: air-to-surface interface, agile combat support, CAA operations, information operations, intelligence, surveillance and reconnaissance (ISR), personnel recovery and recovery operations, precision fires, psychological operations dissemination, specialized air mobility, and specialized refueling (Department of the Air Force 2005, 8). The USASOC has tasked the 160th Special Operations Aviation Regiment (Airborne) (SOAR(A)) with the following missions. The 160th SOAR(A) is expected to be able to “Infiltrate, resupply, and exfiltrate United States Special Operations Forces and other selected personnel” (Department of the Army 2000, 1-2). Each of these different missions sets will be discussed in-depth where they apply to the secondary research question being answered.

Secondary Research Question 1: Which roles and missions provided by fixed-wing SOA aircraft can be best used by the United States in the GWoT inside Indonesia. The United States Army does not fly any special operations fixed-wing aircraft in a

tactical role. Therefore, all of the SOA fixed-wing missions will be flown by and executed by the AFSOC. AFSOC's flies four primary fixed-wing aircraft, all variants of the Lockheed Martin C-130. These aircraft are the AC-130, C-130, EC-130, and the MC-130. (AFSOC Fact Sheet 2006). The capabilities of these aircraft are documented in Appendix A.

SOA fixed-wing aircraft can conduct many different missions. Their aircraft are capable of conducting a variety of fire support type missions. SOA fixed-wing aircraft can execute close air support, air interdiction and force protection missions. In order to execute these missions, AFSOC utilizes the AC-130. Since the beginning of the GWoT, the AC-130 has been a tremendous force multiplier. Close air support missions are an extremely important ground SOF Forces. The AC-130 supports troops in contact, executes convoy escort, and even supports SOF Forces executing urban operations (AFSOC Fact Sheet 2006). The AC-130 is also capable of executing air interdiction missions. These missions are conducted against preplanned targets and/or targets of opportunity. Air interdiction missions are generally planned into all direct action missions. The AC-130 is also AFSOC's primary aircraft to execute its core mission of delivering precision fires which involves the use of "responsive, persistent, and precision weapons to provide lethal or less than lethal effects on a target" (Department of the Air Force 2005, 13).

AFSOC is also capable of providing force protection for friendly forces and key allies utilizing the AC-130. Fixed-wing force protection missions include air base defense, facilities defense, and point defense where required. These types of missions are

extremely effective in an unconventional warfare campaign, as well as FID and humanitarian assistance.

AFSOC fixed-wing aircraft are also excellent platforms to conduct ISR operations. AFSOC's primary ISR platform is the MQ-1 predator UAV. The AC-130 and many MC-130s have the capability to serve as nonstandard ISR platforms throughout the entire range of the ground SOF core missions.

Besides fire support and ISR, AFSOC fixed-wing aircraft are also capable of conducting information operations, psychological operations and civil affairs broadcasts. AFDD 2-7 defines this mission as psychological operations dissemination.

PSYOP [Psychological Operations] are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives. AFSOF conducts PSYOP via two primary methods: airborne broadcasts and ground dissemination. Broadcasting radio and television PSYOP and counter propaganda messages to selected audiences helps achieve tactical, operational, or strategic effects. Leaflet drops support PSYOP efforts by delivering information to displaced personnel, enemy fielded forces, enemy populations, etc. Additionally, AFSOF may deliver PSYOP messages via unconventional means, such as the aerial delivery of specialized munitions. (Department of the Air Force 2005, 13)

AFSOC fixed-wing aircraft, primarily the EC-130 Commando Solo, can also execute information operations. These missions and operations include "offensive and defensive actions taken to disrupt, corrupt, or usurp adversarial human and automated decision-making while protecting our own." Information includes elements of "influence operations" to include electronic warfare (Department of the Air Force 2005, 12). These missions can be used throughout the entire spectrum of SOF missions. Information

operations and psychological operations missions will continue to be extremely important to any future operations against violent extremists in Indonesia.

AFSOC fixed-wing aircraft also performed long range “infiltration, exfiltration, and resupply of special operations forces and equipment in hostile or denied territory” (AFSOC Fact Sheet 2006). AFSOC has defined this as a core mission called specialized air mobility which is the “conduct of rapid, global, specialized airlift of personnel, equipment, and supplies. Methods include infiltration, exfiltration, and resupply” (Department of the Air Force 2005, 14). Many of these missions may be clandestine and are often conducted in hostile, denied, or politically sensitive airspace.

AFSOC has played a visible role thus far in the GWoT performing long range infiltrations and exfiltrations. Two particular missions demonstrate the AFSOC’s fixed-wing capabilities. In Operation Enduring Freedom in Afghanistan on 19 October 2001:

Four MC-130s dropped 199 Rangers from 800 feet above ground level under zero illumination to seize a remote desert landing strip, or DLS; to destroy Taliban forces; to gather intelligence; to provide a casualty transload site; to establish a forward aerial refuel/rearm point, or FARP, for rotary-wing aircraft; and to assess the capabilities of the airstrip for future operations. (Kiper 2002)

This was the initial attack into Afghanistan. AFSOC also conducted a mission early in Operation Iraqi Freedom dubbed Operation Ugly Baby. This was another excellent example of AFSOC fixed-wing aircraft conducting long-range infiltrations into denied territory in support of SOF forces. Following the initial infiltrations, MC-130’s continued to execute their primary missions. Major David Diehl said, “We’re going to re-supply any form of SF teams in the field, so we’re either going to drop it from the air or land in an airfield and then drop it to them. . . . We had four missions over there in which we did airdrop re-supply to the Special Forces teams” (McCool 2005a, 5).

AFSOC fixed-wing is also capable of conducting personnel recovery and recovery operations. AFSOC's core mission to conduct PR operations involves "operations necessary to report; locate; support; recover; and debrief and reintegrate isolated personnel across the spectrum of operating environments." Besides personnel, AFSOC also conducts recovery operations designed to "locate and securing sensitive equipment or material" (Department of the Air Force 2005, 13).

Finally, AFSOC has fixed-wing aircraft devoted to providing aerial refuel. Their mission is to extend the range of SOA helicopters by providing air refueling in hostile or contested airspace if required (AFSOC Fact Sheet 2006). This capability is important throughout the spectrum of the SOF core tasks.

Secondary Research Question 2: Which roles and missions provided by rotary wing SOA aircraft can best be used by the United States in the GWoT inside Indonesia? The USASOC has one aviation regiment dedicated to providing rotary wing SOA support. The 160th SOAR(A) provides "aviation support to Army special operations forces. The Regiment consists of MH-6 and AH-6 light helicopters, MH-60 helicopters and MH-47 heavy assault helicopters" (USASOC 2006). The capabilities of these aircraft are documented in appendix B.

Unlike AFSOC which clearly lays out and defines the missions that their organizations are expected to execute, USASOC just tasked the 160th SOAR(A) "to plan, conduct, and support special operations by clandestinely penetrating non-hostile, hostile, or denied airspace. ARSOA conducts air operations in any operational environment across the spectrum of conflict" (Department of the Army 2000, 1-1). What does that mean? FM 3-05.60, *Army Special Operations Aviation Operations*, provides a list of

mission essential and battle tasks to focus the 160th SOAR(A). The 160th SOAR(A) has been directed to be ready to execute these missions in support of the GWoT in Indonesia.

1. Infiltrate, resupply, and exfiltrate United States SOF and other selected personnel
2. Insert and extract SOF land and maritime assault vehicles and vessels
3. Conduct direct action or close air support using organic attack helicopters to provide aerial firepower and terminal guidance for precision munitions, unilaterally or with other SOF
4. Conduct special reconnaissance missions in support of SOF
5. Conduct electronic, photographic, and visual reconnaissance in support of SOF
6. Conduct limited electronic warfare in support of Special Operations
7. Recover personnel or sensitive materiel in support of SOF.

The 160th SOAR(A) can execute all its missions with all its aircraft with one exception. The AH-6 “Little Bird Attack” is designed to execute close air support missions. That is the one and only role the AH-6 executes. As for the other three aircraft, the MH-6, Little Bird Lift; MH-60, Blackhawk; and MH-47, Chinook--are all prepared to execute all missions in the appropriate environment. It becomes the commander’s responsibility to ensure that the correct aircraft is selected and ultimately utilized for mission execution. For example, choosing to execute an urban infiltration in a developing country with an MH-47 is a terrible choice because of the amount of destruction that is caused by the rotor wash from a MH-47. A MH-60 or MH-6 would be a far better choice in order to prevent damage to buildings as well as increase freedom of action.

Rotary wing SOA provides “rapidly deployable light attack helicopters to meet the need for precise, small-area target destruction or neutralization, with provisions for close air fire support for ground assault operations” (Department of the Army 2000, B-6). These same aircraft can conduct direct action or close air support missions and provide aerial firepower and terminal guidance for precision munitions, unilaterally or with other SOF (Department of the Army 2000, 1-2). The 160th SOAR(A) also has a MH-60 with the primary mission to conduct attack helicopter operations utilizing area fire and/or precision guided munitions and armed infiltration or exfiltration of small units. It is capable of conducting direct action missions as an attack helicopter or has the capability to reconfigure for troop assault operations (USASOC 2006).

USASOC also provides rotary wing aircraft capable of executing “overt and covert infiltration, exfiltration, and combat assaults over a wide variety of terrain and environmental conditions” (Department of the Army 2000, B-2). The 160th SOAR(A) has executed numerous combat missions during the last twenty years in many different types of terrain and environments with many different aircraft. Published successes by the 160th SOAR(A) in Panama, Afghanistan, Baghdad, and the Philippines shows the versatility the 160th SOAR(A)’s rotary-wing aircraft. Depending on the size, location, and enemy threat on the target will determine how and which aircraft to utilize for the mission.

The 160th SOAR(A) also provides rotary-wing aircraft capable of conducting command and control, combat search and rescue, and medical evacuation operations as required (Department of the Army 2000, B-13). SOA Rotary-wing aircraft also are capable of providing armed escort and fire support. The 160th SOAR(A) also provides

rotary aircraft capable of performing a variety of other missions, including shipboard operations, platform operations, urban operations, water operations, forward aerial refuel and rearm point operations, mass casualty operations, and combat search and rescue operations (USASOC 2006).

Clearly, USASOC can provide rotary-wing aircraft capable of support the GWoT in Indonesia. Their primary mission roles will be direct action and counterterrorism with secondary missions to support unconventional warfare, FID, civil military operations, and humanitarian assistance.

Secondary Research Question 3: Which roles and missions provided by UAV can best be used by the United States in the GWoT inside Indonesia?

AFSOC just recently stood up a UAV squadron. It is equipped with MQ-1 Predator aircraft. The MQ-1 Predator is a medium-altitude, long-endurance, remotely piloted aircraft. The MQ-1's primary mission is interdiction and conducting armed reconnaissance against critical, perishable targets (AFSOC Fact Sheet 2006).

The UAV will be used in two separate roles in Indonesia, air-to-surface interface and in an ISR role. First, the air-to-surface interface mission. This mission covers a wide range of duties from "collecting information, to operating tactical sensors, including unmanned systems. Nested within this mission area lies the emerging and transformational capabilities provided by unmanned systems" (Department of the Air Force 2005, 8). What does this really mean? AFSOC provides UAV and other tactical sensors in order to collect and provide information and intelligence to the special operations community. The UAVs will provide ISR on the battlefield. AFSOC's "ISR

platforms including AC-130s and UAVs are designed to produce actionable intelligence” (Department of the Air Force 2005, 12).

Thus far in the GWoT, the UAV has been an indispensable asset providing battlefield commanders with persistent ISR in denied areas. The UAV has had a significant role thus far in most of the SOF missions, especially in special reconnaissance, direct action, and counterterrorism missions. This persistent ISR capability will allow the UAVs to be a valuable asset regardless of the roles SOA will play in Indonesia. UAVs will have a role in every future SOF mission, everything from direct action to counter proliferation of weapons of mass destruction.

Secondary Research Question 4: Which roles and missions provided by SOA FID can best be used by the United States in the GWoT inside Indonesia?

AFSOC has designed a core mission around the concept of conducting aviation FID. It is described as CAA operations. CAA operations are a growing and developing AFSOC core mission. FID is the “participation by civilian and military agencies of a government in any of the action programs taken by another government or other designated organization, to free and protect its society from subversion, lawlessness, and insurgency” (Chairman, Joint Chiefs of Staff 2004, I-1). These operations are specifically “tailored to assess, train, advise, and assist foreign aviation forces in air operations employment and sustainability” (Department of the Air Force 2005, 11).

The scope of CAA operations includes airpower planning, sustainment, and employment at the tactical, operational, and strategic levels. Here are some of the key duties that CAA are expected to perform (Department of the Air Force 2005, 11):

1. Conduct local or regional assessments of foreign aviation forces' capabilities to employ and sustain aviation resources.
2. Promote safety and interoperability between US forces and coalition partners.
3. Act as an air and space power force multiplier by developing and executing tailored training programs to increase the tactical effectiveness of HN aviation resources in support of the combatant commander's objectives.
4. Provide assistance to aviation forces in direct participation of FID, coalition support, unconventional warfare, humanitarian relief/assistance, and disaster relief.

Primary Research Question: What is the role of SOA in support of the United States' military objectives in the GWoT in Indonesia? SOA will have multiple roles in the GWoT in Southeast Asia. After conducting research into the four secondary research questions, it is clear that SOA's primary roles can be nested into United States Special Operations Command's nine primary missions: direct actions, civil affairs operations, special reconnaissance, psychological operations, FID, information operations, unconventional warfare, counterterrorism, and counterproliferation of weapons of mass destruction. Table 1 shows the nine primary roles conducted by SOF forces with the results of the secondary questions "nested" under the nine primary SOF roles. This is the essence of what SOA will do in support of the GWoT in Southeast Asia.

**Table 1. Special Operations Aviation Missions “Nested” with Special Operations Forces Missions**

<b><u>Direct Action (DA)</u></b>	<ul style="list-style-type: none"> <li>• Conduct direct action (DA)</li> <li>• Insert and extract SOF</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Air to Surface Interface (ASI):</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR):</li> <li>• Precision Fires (PF):</li> <li>• Specialized Air Mobility (SAM)</li> </ul>	<ul style="list-style-type: none"> <li>• Information Operations (IO)</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR)</li> <li>• Specialized Air Mobility (SAM)</li> </ul>
<b><u>Civil Affairs Operations (CMO)</u></b>	<ul style="list-style-type: none"> <li>• Insert and extract SOF</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Air to Surface Interface (ASI)</li> <li>• Combat Aviation Advisory (CAA) Operations:</li> <li>• Information Operations (IO)</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR)</li> <li>• Psychological Operations (PSYOP) Dissemination</li> <li>• Specialized Air Mobility (SAM)</li> </ul>	<ul style="list-style-type: none"> <li>• Insert and extract SOF</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Information Operations (IO)</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR):</li> <li>• Psychological Operations (PSYOP) Dissemination</li> <li>• Specialized Air Mobility (SAM)</li> </ul>
<b><u>Special Reconnaissance (SR)</u></b>	<ul style="list-style-type: none"> <li>• Conduct special reconnaissance</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Air to Surface Interface (ASI):</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR)</li> <li>• Specialized Air Mobility (SAM)</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct special reconnaissance</li> <li>• Insert and extract SOF</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Air to Surface Interface (ASI)</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR)</li> <li>• Precision Fires (PF)</li> <li>• Specialized Air Mobility (SAM)</li> </ul>
<b><u>Psychological Operations (PO)</u></b>	<ul style="list-style-type: none"> <li>• Insert and extract SOF</li> <li>• Information Operations (IO):</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR):</li> <li>• Psychological Operations (PSYOP) Dissemination</li> <li>• Specialized Air Mobility (SAM)</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct direct action (DA)</li> <li>• Conduct special reconnaissance</li> <li>• Insert and extract SOF</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Air to Surface Interface (ASI)</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR)</li> <li>• Precision Fires (PF)</li> <li>• Specialized Air Mobility (SAM)</li> </ul>
<b><u>Foreign Internal Defense (FID)</u></b>	<ul style="list-style-type: none"> <li>• Conduct direct action (DA)</li> <li>• Conduct special reconnaissance</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Combat Aviation Advisory (CAA) Operations</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct direct action (DA)</li> <li>• Conduct special reconnaissance</li> <li>• Insert and extract SOF</li> <li>• Conduct electronic, photographic, and visual reconnaissance</li> <li>• Air to Surface Interface (ASI)</li> <li>• Intelligence, Surveillance and Reconnaissance (ISR)</li> <li>• Precision Fires (PF)</li> <li>• Specialized Air Mobility (SAM)</li> </ul>
<b><u>Information Operations (IO)</u></b>		
<b><u>Counterterrorism (CT)</u></b>		
<b><u>Counter proliferation of Weapons of Mass Destruction (WMD)</u></b>		

Results. Now that SOA's missions have been “nested” into SOF’s primary’s missions military planners can apply the operational planning model against Jamaah Islamiah to determine what the primary role of SOA will be fighting in the GWoT in Indonesia. Figure 4 is a graphic representation of the Operational Planning Model. After applying the operational planning model to JI the following results are seen. The primary SOF missions’ breakdown like this:

1. Information operations or IO–11 Occurrences
2. Direct action or DA–9 Occurrences
3. Special Reconnaissance or SR–9 Occurrences
4. Civil Affairs Operations or CAO–7 Occurrences
5. Foreign Internal Defense or FID–6 Occurrences
6. Psychological Operations or PO–5 Occurrences
7. Unconventional Warfare or UW–3 Occurrences
8. Counterterrorism–0 Occurrences
9. Counterproliferation–0 Occurrences

The result from the operational planning model shows that SOA’s primary missions will be in support of information operations. SOA’s required capabilities (table 1) for information operations will require SOA to execute visual reconnaissance, information operations, ISR, psychological operations, and specialized air mobility (Infil and Exfill). These same tasks are essentially required for execution of seven missions.

# Operational Planning Model Against JI

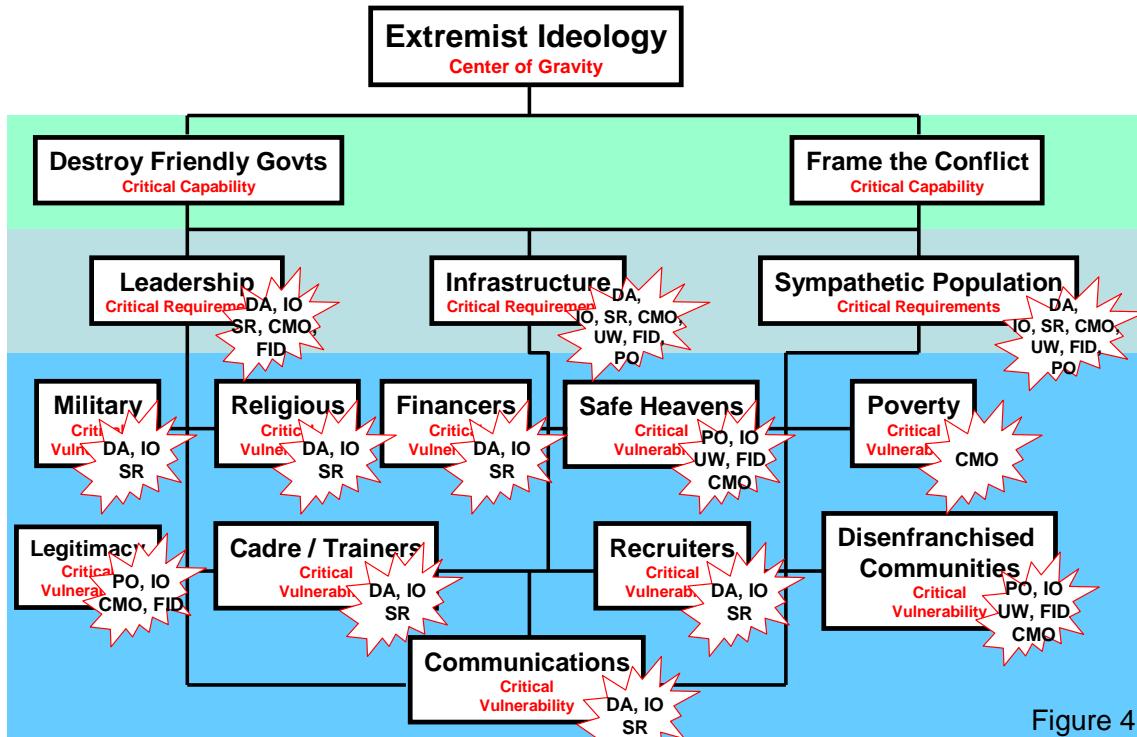


Figure 4

Figure 4. Operational Planning Model Against Jemaah Islamiah

The operational planning model shows that, in Indonesia, SOA's primary missions will be to execute information operations, civil affairs operations, FID, and psychological operations. This will change SOA's primary training focus and cause planners to determine if there are other assets in the military's inventory that can execute information operations, civil affairs operations, and FID. Chapter 5 will further discuss these findings.

## CHAPTER 5

### CONCLUSIONS

#### Introduction

During the early campaigns in the GWoT, particularly in Operation Enduring Freedom and Operation Iraqi Freedom, SOA was widely utilized in the prosecution of the on going GWoT. On 20 September 2001, President Bush declared to the world that the United States’ “war on terror begins with al-Qaeda, but it does not end there. It will not end until every terrorist group of global reach has been found, stopped and defeated” (White House 2001). Thus far, the United States has been conducting a very visible GWoT primarily in the Middle East under the command of United States Central Command. As this research has shown, the GWoT is also being executed in other parts of the world. As the GWoT continues to develop into a truly global war, the United States will continue to focus on and eventually deploy more and more assets to Southeast Asia, in particular to Indonesia. This thesis determined what role SOA assets would provide in the GWoT in Indonesia.

#### Findings

SOA will play a critical, but limited role in the GWoT and the defeat of the JI in Indonesia. At the outset of the research, the assumption was made that SOA’s role would grow in significance. Today SOA assets participate in one or two joint combined exchange training exercises per year. It was anticipated that the research would show that SOA would be executing “kill or capture” type missions in support of the GWoT in Indonesia, similar to missions conducted in Operation Enduring Freedom, Operation

Enduring Freedom-Philippines, and Operation Iraqi Freedom. However, after completing the research, it is clear that the GWoT in Indonesia is already being successfully fought and won by the Indonesian Government with minimal support from the United States Government. Consequently, this will significantly limit the role of SOA in Indonesia.

Utilizing the operational planning model, SOA's future roles and missions emerged. Instead of executing long-range infiltrations and exfiltrations or direct action raids, as SOA did so well in support of Operation Enduring Freedom and Operation Iraqi Freedom, SOA will be expected to execute more mundane, yet extremely important missions. Direct action, kill or capture missions will be reserved for missions of national importance--missions that the United States is willing to execute unilaterally, missions such as killing or capturing Usama Bin Laden and his senior lieutenants.

The operational planning model shows that, in Indonesia, SOA's primary missions will be to execute information operations, civil affairs operations, FID, and psychological operations. In fact, the research shows that the resourced constrained SOA forces can be better utilized in other countries where the GWoT is being less successfully prosecuted by the host countries. The United States, therefore, can best utilize its precious resources by deploying conventional aviation assets (Army, Navy, Air Force, or Marines) in support of the GWoT in Indonesia. Future United States DoD missions in Indonesia will more closely resemble recently completed humanitarian operations like the Tsunami relief mission executed in December 2004. These "influence" type missions will affect the region far more than those missions that require the unique capabilities of SOA. Conventional forces delivery of humanitarian and relief supplies will ultimately influence

for good the fight against violent extremist ideologies more than a traditional SOF raid to kill or capture the senior leaders of JI utilizing SOA assets.

### Implications

Military planners need to thoroughly review each mission planned in support of the GWoT in Indonesia. The planners must determine the appropriate assets and resources for each mission. The selected assets must not interfere with or disrupt the current success Indonesia is experiencing inside its country. The selected assets must support and advance Indonesian policy. Thus far, in the GWoT, SOF forces have played a significant role supporting countries like Afghanistan, Iraq, and the Philippines. The operational planning model determined that conventional forces armed with humanitarian aid would be the best weapon and utilization of the United States assets to defeat violent extremist organizations in the future. SOA will have a very limited role in these missions. Utilizing conventional aviation assets allows military planners to protect its low-density, high-demand SOA assets. SOA's limited assets will be saved to execute critical missions that require the unique capabilities for successful execution of the mission.

The research also shows that the operational planning model provides military planners with an easy method to determine the appropriate assets to deploy in support of the GWoT. Often planners deploy SOA assets into theater because they are available and not because they are needed. SOA is a low-density and high-demand asset that is constantly being utilized throughout the world. In order to preserve these low-density and high demand assets, planners need to utilize a formal method to determine if SOA is truly required for the mission. The research shows that detailed planning prevents utilizing SOA "just because we always have." Planners should utilize the operational planning

model or another analytical tool that allows planners to determine their realistic asset requirements prior to any future force deployment.

### Unexpected Findings

The Indonesian government is winning its war against violent extremist ideologies (primarily propagated by the JI) within their country with minimal military support from the United States. They are defeating the JI. This directly conflicted with the initial assumptions made prior to beginning the research. Consequently, the roles and missions of SOA are different from those roles and missions SOA executed early in the GWoT elsewhere in the world. Finally, the United States' commitment to the GWoT in Indonesia will be different from the support the United States provided to the Philippines, Iraq, or Afghanistan. The success in Indonesia will allow the United States to expand the GWoT to other countries in Southeast Asia accelerating the defeat of violent extremists' organizations with global reach.

### Further Study

While the research determined the future roles of SOA in the GWoT in Indonesia, the research also left many unanswered questions that should be considered for research in the future. Potential future research questions that need to investigated are:

1. The most obvious question is: how and why the government of Indonesia is defeating the violent extremist organizations within their country?
2. How can Indonesia's successful strategy be applied to other countries under attack from violent extremist organizations?

3. With the emerging roles of SOA in Indonesia, does the United States have the correct mix of SOA assets in its current inventory?

4. The missions, roles, and required capabilities need to be developed for nontraditional roles for SOA in future military conflicts throughout the world. This would require developing new tactics, techniques, and procedures.

### Conclusion

SOA has a vital role in all future military operations in support of the GWoT. However, the operational planning model showed that within the current GWoT framework in Indonesia, the traditional SOA roles of direct action and counterterrorism will be limited, while FID, information operations, and psychological operations are the new and emerging roles for future SOA operations. These missions, roles, and required capabilities need to be developed for use in future military conflicts throughout the world.

The United States is at war with violent extremist organizations in Southeast Asia, particularly the JI in Indonesia as they support al-Qaeda. There is a role for SOA in Indonesia; however, the role for SOA will be different from earlier contributions to the GWoT. SOA's missions may still include sporadic direct action kill or capture missions against high value targets. SOA, however, will be relegated to nontraditional support missions such as psychological operations, information operations and FID. These missions represent the future for SOA in the GWoT in Indonesia.

## GLOSSARY

**Abu Sayyaf Group.** The Abu Sayyaf Group is a violent Muslim terrorist group operating in the southern Philippines. Some ASG leaders allegedly fought in Afghanistan during the Soviet invasion and are students and proponents of radical Islamic teachings. The group split from the much larger Moro National Liberation Front in the early 1990s under the leadership of Abdurajak Abubakar Janjalani, who was killed in a clash with Philippine police in December 1998. His younger brother, Khadaffy Janjalani, replaced him as the nominal leader of the group (Department of State 2006, 185).

**Agile Combat Support.** Provide precise and responsive combat support to Air Force Special Operations Command forces across the range of military operations. Agile Combat Support forces must be prepared to deploy globally and prepare, sustain, and protect AFSOC units to ensure mission success. Mission tasks are to provide combat support to ready and prepare forces effectively for quick response and sustainment of operational activity efficiently with the right resource, at the right place, at the right time, and for the right length of time. This core mission includes civil engineering; communications and information; intelligence; logistics; medical; operations; security forces; space operations; and weather (Department of the Air Force 2005, 10).

**Air –to-Surface Interface.** Provide terminal control and collect information via special reconnaissance of targets enhancing the air to surface interface. Provide battlefield trauma care, non-permissive and semi-permissive weather operations, and environmental predictions. This mission covers a wide range of duties from collecting information, to operating tactical sensors, including unmanned systems. Additional inherent capabilities act as enablers for other mission areas. Nested within this mission area lies the emerging and transformational capabilities provided by unmanned systems. While associated with this mission area, unmanned systems are not only inherent within the Air to Surface Interface nor found only under the auspices of combat control weapon systems, but rather unmanned systems cut across all mission areas (Department of the Air Force 2005, 10).

**Centers of Gravity (CoG).** Physical or moral entities that are the primary components of physical or moral strength, power, and resistance. They don't just contribute to strength; they ARE the strength. They offer resistance. They strike effective (or heavy) physical or moral blows. At the strategic level, they are usually leaders and populations determined to prevail. At operational and tactical levels they are almost invariably specific military forces (Strange and Iron 2005b, 7).

**Combat Aviation Advisory (CAA) Operations.** A special operation specifically tailored to assess, train, advise, and assist foreign aviation forces in air operations employment and sustainability. CAA operations support theater combatant

commanders throughout the operational continuum, primarily by facilitating the availability, reliability, safety, interoperability, and integration of friendly and allied aviation forces supporting joint and combined operations. These operations also address airpower employment—including air combat tactics, techniques, and procedures—as well as airpower sustainment specialties such as mission planning, aircraft maintenance, logistics, air base defense, aircrew survival, medical support, command and control, and air-ground coordination procedures. The scope of CAA operations includes airpower planning, sustainment, and employment at the tactical, operational, and strategic levels (Department of the Air Force 2005, 10).

Counterinsurgency (COIN). Those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency (Chairman, Joint Chiefs of Staff 2006a, 127). COIN is commonly misused to describe Foreign Internal Defense (FID).

Counterterrorism. Operations that include the offensive measures taken to prevent, deter, preempt, and respond to terrorism (Chairman, Joint Chiefs of Staff 2006a, 130).

Critical Capabilities. Every center of gravity has some primary ability (or abilities) that makes it a center of gravity in the context of a given scenario, situation or mission—including phases within campaigns or operations. Most simply stated: what can this center of gravity do to you that puts great fear (or concern) into your heart in the context of your mission and level of war? Within a critical capability, the key word is the verb: it can destroy something, or seize an objective, or prevent you from achieving a mission (Strange and Iron 2005b, 7).

Critical Requirements. Conditions, resources and means that are essential for a center of gravity to achieve its critical capability (Strange and Iron 2005b, 7).

Critical Vulnerabilities. Those critical requirements, or components thereof, that are deficient, or vulnerable to neutralization or defeat in a way that will contribute to a center of gravity failing to achieve its critical capability. The lesser the risk and cost, the better (Strange and Iron 2005b, 7).

Direct Action. Short-duration strikes and other small-scale offensive actions conducted as a special operation in hostile, denied, or politically sensitive environments and which employ specialized military capabilities to seize, destroy, capture, exploit, recover, or damage designated targets. Direct action differs from conventional offensive actions in the level of physical and political risk, operational techniques, and the degree of discriminate and precise use of force to achieve specific objectives (Chairman, Joint Chiefs of Staff 2006a, 169).

Foreign Internal Defense (FID). Participation by civilian and military agencies of a government in any of the action programs taken by another government or other

designated organization to free and protect its society from subversion, lawlessness, and insurgency (Chairman, Joint Chiefs of Staff 2006a, 214).

Jemaah Islamiah (JI). The Southeast Asia-based JI is an extremist group that seeks the establishment of an Islamic caliphate spanning Indonesia, Malaysia, southern Thailand, Singapore, Brunei, and the southern Philippines. More than 300 JI operatives, including operations chief Hambali, have been captured since 2002. The death of top JI bombmaker Azahari bin Husin in November may have disrupted JI operations temporarily, though the group likely continues attack planning, recruitment, and training. Noordin Top, a senior JI operative involved in several major attacks, remains at large. JI emir Abu Bakar Bashir served a 30-month sentence in a Jakarta prison for his involvement in the 2002 Bali bombings.

**Operational Art.** The employment of military forces to attain strategic and/or operational objectives through the design, organization, integration, and conduct of strategies, campaigns, major operations, and battles. Operational art translates the joint force commander's strategy into operational design and, ultimately, tactical action, by integrating the key activities at all levels of war (Chairman, Joint Chiefs of Staff 2006a, 389).

**Operational level of war.** The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or other operational areas. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces; and they provide the means by which tactical successes are exploited to achieve strategic objectives (Chairman, Joint Chiefs of Staff 2006a, 391).

**Psychological Operations.** Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives (Chairman, Joint Chiefs of Staff 2006a, 432).

**Special Operations.** Operations conducted in hostile, denied, or politically sensitive environments to achieve military, diplomatic, informational, and/or economic objectives employing military capabilities for which there is no broad conventional force requirement. These operations often require covert, clandestine, or low visibility capabilities. Special operations are applicable across the range of military operations. They can be conducted independently or in conjunction with operations of conventional forces or other government agencies and may include operations through, with, or by indigenous or surrogate forces.

Special operations differ from conventional operations in degree of physical and political risk, operational techniques, mode of employment, independence from friendly support, and dependence on detailed operational intelligence and indigenous assets (Chairman, Joint Chiefs of Staff 2006a, 496).

**Special Operations Forces (SOF).** Those Active and Reserve Component forces of the Military Services designated by the Secretary of Defense and specifically organized, trained, and equipped to conduct and support special operations (Chairman, Joint Chiefs of Staff 2006a, 497).

**Special Reconnaissance.** Reconnaissance and surveillance actions conducted as a special operation in hostile, denied, or politically sensitive environments to collect or verify information of strategic or operational significance, employing military capabilities not normally found in conventional forces. These actions provide an additive capability for commanders and supplement other conventional reconnaissance and surveillance actions (Chairman, Joint Chiefs of Staff 2006a, 498).

**Weapons of Mass Destruction.** Weapons that are capable of a high order of destruction and/ or of being used in such a manner as to destroy large numbers of people. Weapons of mass destruction can be high explosives or nuclear, biological, chemical, and radiological weapons, but exclude the means of transporting or propelling the weapon where such means is a separable and divisible part of the weapon (Chairman, Joint Chiefs of Staff 2006a, 575).

## APPENDIX A

### FIXED-WING SPECIAL OPERATIONS AIRCRAFT

#### **MC-130E/H COMBAT TALON I/II**



##### **Mission**

The MC-130E Combat Talon I and MC-130H Combat Talon II provide infiltration, exfiltration and resupply of special operations forces and equipment in hostile or denied territory. Secondary missions include psychological operations and helicopter air refueling.

##### **Features**

Both aircraft feature terrain-following and terrain-avoidance radars capable of operations as low as 250 feet in adverse weather conditions. Structural changes to a basic C-130 include the addition of an in-flight refueling receptacle, and strengthening of the tail to allow high speed/low-signature airdrop. Their navigation suites include dual ring-laser gyros, mission computers and integrated global positioning system. They can locate, and either land or airdrop on small, unmarked zones with pinpoint accuracy day or night.

An extensive electronic warfare suite enables the aircrew to detect and avoid potential threats. If engaged, the system will protect the aircraft from both radar and infrared-guided threats. Currently, the MC-130E is equipped with aerial refueling pods to provide in-flight refueling of Special Operations Forces and combat search and rescue helicopters. The MC-130H will be modified to provide this capability in the near future.

The primary difference between the MC-130E and MC-130H involves the degree of integration of the mission computers and avionics suite. The Combat Talon I was conceived originally and developed during the 1960s, and although extensively upgraded in the 1980-90s it still features analog instrumentation and does not fully integrate the sensors and communications suites. The Combat Talon II, designed in the 1980s, features an integrated glass flight deck which improves crew coordination and reduces the crew complement by two.

### **General Characteristics**

**Primary Function:** Infiltration, exfiltration and resupply of special operations forces

**Builder:** Lockheed

**Power Plant:** Four Allison T56-A-15 turboprop engines

**Thrust:** 4,910 shaft horsepower each engine

**Length:**

MC-130E: 100 feet, 10 inches (30.7 meters)

MC-130H: 99 feet, 9 inches (30.4 meters)

**Height:** 38 feet, 6 inches (11.7 meters)

**Wingspan:** 132 feet, 7 inches (40.4 meters)

**Speed:** 300 mph

**Load:**

MC-130E: 53 troops, 26 paratroopers

MC-130H: 77 troops, 52 paratroopers or 57 litter patients

**Ceiling:** 33,000 feet (10,000 meters)

**Maximum Takeoff Weight:** 155,000 pounds (69,750 kilograms)

**Range:** 2,700 nautical miles (4,344 kilometers) Inflight refueling extends this to unlimited range

**Crew:**

MC-130E: Officers - two pilots, two navigators and an electronic warfare officer; enlisted - flight engineer, radio operator and two loadmasters

MC-130H: Officers - two pilots, a navigator and electronic warfare officer; enlisted - flight engineer and two loadmasters

**Date Deployed:** MC-130E, 1966; MC-130H, June 1991

**Unit Cost:** MC-130E, \$75 million; MC-130H, \$155 million (fiscal 2001 constant dollars)

**Inventory:** Active force, MC-130H, 24; Reserve, MC-130E, 14; ANG, 0

### **Point of Contact**

[U.S. Air Force Special Operations Command](#), Public Affairs Office; 229 Cody Ave, Ste 103; Hurlburt Field FL 32544-5312; DSN 579-5515 or (850) 884-5515

October 2005

## MC-130P COMBAT SHADOW



### Mission

The Combat Shadow flies clandestine or low visibility, single or multi-ship low-level missions intruding politically sensitive or hostile territory to provide air refueling for special operations helicopters. The MC-130P primarily flies missions at night to reduce probability of visual acquisition and intercept by airborne threats.

Secondary mission capabilities may include airdrop of leaflets, small special operations teams, bundles and combat rubber raiding craft, as well as night vision goggles, takeoff and landing procedures and in-flight refueling as a receiver.

### Features

Recent modifications to the MC-130P feature improved navigation, communications, threat detection and countermeasures systems. The Combat Shadow fleet has a fully-integrated inertial navigation and global positioning system, and night vision goggle compatible interior and exterior lighting. It also has forward looking infrared, radar and missile warning receivers, chaff and flare dispensers, night vision goggle compatible heads-up display, satellite and data-burst communications, as well as in-flight refueling capability as a receiver (on 15 aircraft).

The Combat Shadow can fly in the day against a low threat. The crews fly night low-level, air refueling and formation operations using night vision goggles. To enhance the probability of mission success and survivability near populated areas, employment tactics incorporate no external lighting and no communications to avoid radar and weapons detection.

### General Characteristics

**Primary Function:** Air refueling for special operation forces helicopters

**Builder:** Lockheed

**Power Plant:** Four Allison T56-A-15 turboprop engines

**Thrust:** 4,910 shaft horsepower each engine

**Length:** 98 feet, 9 inches (30.09 meters)

**Height:** 38 feet, 6 inches (11.7 meters)

**Wingspan:** 132 feet, 7 inches (40.4 meters)

**Speed:** 289 mph (at sea level)

**Ceiling:** 33,000 feet (10,000 meters)

**Maximum Takeoff Weight:** 155,000 pounds (69,750 kilograms)

**Range:** Beyond 4,000 miles

**Crew:** Officers - pilot, co-pilot, right navigator and left navigator; enlisted - flight engineer, communications systems operator and two loadmasters

**Date Deployed:** 1986

**Unit Flyaway Cost:** \$75 million (fiscal 2001 dollars)

**Inventory:** Active force, 24; Reserve, 0; ANG, 4

**Point of Contact**

[U.S. Air Force Special Operations Command](#), Public Affairs Office; 229 Cody Ave, Ste 103; Hurlburt Field FL 32544-5312; DSN 579-5515 or (850) 884-5515.

October 2005

## **EC-130J COMMANDO SOLO**



### **Mission**

The EC-130J Commando Solo, a specially-modified four-engine Hercules transport, conducts information operations, psychological operations and civil affairs broadcasts in AM, FM, HF, TV and military communications bands. A typical mission consists of a single-ship orbit offset from the desired target audience -- either military or civilian personnel.

### **Features**

Many modifications have been made to Commando Solo. These include enhanced navigation systems, self-protection equipment, air refueling and the capability of broadcasting radio and color TV on all worldwide standards.

### **Background**

The Air Force Special Operations Command's 193rd Special Operations Wing, Middleton, Pa., has total responsibility for the Commando Solo missions. The only aircraft used is the EC-130J.

The EC-130 aircraft flown by the 193rd SOW were originally modified using mission electronic equipment transferred from the older EC-121 (known as Coronet Solo). Soon after the 193rd SOW received EC-130s, the Air National Guard unit participated in the rescue of American citizens in Operation Urgent Fury in 1983. Then known as Volant Solo, the aircraft acted as an airborne radio station, keeping the people of Grenada informed about the U.S. military action.

Several years later in 1989, Volant Solo was instrumental in the success of coordinated psychological operations in Operation Just Cause. During this mission it broadcast throughout the initial phases of the operation, helping to end the Noriega regime.

In 1990, the 193rd joined the newly formed Air Force Special Operations Command, and the wing's aircraft were redesignated Commando Solo, with no change in mission.

In 1990-91, Commando Solo was deployed to Saudi Arabia and Turkey in support of Operations Desert Shield and Desert Storm. Its missions included broadcasting the "Voice of the Gulf" and

other highly successful programs intended to convince Iraqi soldiers to surrender.

In 1994, Commando Solo was used to broadcast radio and TV messages to the citizens and leaders of Haiti during Operation Uphold Democracy. President Jean-Bertrand Aristide was featured in these broadcasts, which contributed to the orderly transition from military rule to democracy.

Continuing its tradition, in 1997 the 193rd SOW and Commando Solo supported the United Nations' Operation Joint Guard with radio and TV broadcasts over Bosnia-Herzegovina in support of Stabilization Forces operations. In 1998, the unit and its aircraft participated in Operation Desert Thunder, a deployment to Southwest Asia to convince Iraq to comply with U.N. Security Council resolutions.

The Commando Solo was again sent into action in 1999 in support of Operation Allied Force. The aircraft was tasked to broadcast radio and television into Kosovo to prevent ethnic cleansing and assist in the expulsion of the Serbs from the region. The aircraft broadcast messages to the local Afghan population and Taliban soldiers during Operation Enduring Freedom. Most recently, the Commando Solo has been deployed to the Middle East in support of Operation Iraqi Freedom. In 2006, the "E" model was retired.

### **General Characteristics**

**Primary Function:** Psychological and information operations

**Builder:** Lockheed Aircraft Co.

**Power Plant:** AE2100D3 six-blade turboprops

**Thrust:** 6,000 shaft horsepower each engine

**Length:** 97.75 feet (29.7 meters)

**Height:** 38.8 feet (11.8 meters)

**Wingspan:** 132.6 feet (40.3 meters)

**Cruise speed:** 335 mph

**Ceiling:** 28,000 feet (8,534 meters)

**Maximum Takeoff Weight:** 155,000 pounds (69,750 kilograms)

**Range:** 2,300 nautical miles unrefueled

**Crew:** pilot, copilot, flight systems officer, mission systems officer; loadmaster, five electronic communications systems operators

**Date Deployed:** 1986

**Unit Flyaway Cost:** approximately \$90 million

**Inventory:** Active force, 0; Reserve, 0; ANG, 6

### **Point of Contact**

[U.S. Air Force Special Operations Command](#), Public Affairs Office; 229 Cody Ave, Ste 103; Hurlburt Field FL 32544-5312; DSN 579-5515 or (850) 884-5515.

November 2006

APPENDIX B  
ROTARY-WING SPECIAL OPERATIONS AIRCRAFT

**AH – 6 Little Bird**



**Communications**

Same as MH-6M

**Navigation**

Same as MH-6M

**Mission Equipment**

Same as MH-6M + AESOP FLIR

**Weapons**

GAU-19 (50 cal), 7.62 mm Minigun, Hellfire, 2.75in FFAR

**Performance**

Max/Cruise Speed: 152 / 90 Kts

Range: 240 NM

Payload: 1400 lbs

Max GWT: 4500 lbs

## MH - 6 Little Bird



### Communications

FM, VHF, UHF, SATCOM, MBITR

### Navigation

GPS, TACAN

### Mission Equipment

FLIR, FRIES, Internal / External Aux Fuel Tanks

### Performance

Max/Cruise Speed: 152 / 90 Kts

Range: 240 NM

Payload: 1400 lbs

Max GWT: 4500 lbs

## MH-60K



### Communications

FM, VHF, UHF, HF, SATCOM, ATHS, ELT, SABER  
Carried: MBITR & IRIDIUM

### Navigation

GPS/INS, AHRS, TACAN, Doppler, VOR, Coupled AFCS

### Mission Equipment / Integrated Avionics System

FLIR, FRIES, MMR, Stormscope, BPS, External Rescue Hoist, AR Probe, (2) 185 or (1) 200 gal Internal Aux Fuel Tanks, Folding Stabilator, Personnel Locator System

### Weapons

(2) M-134 Miniguns

### Performance

Max/Cruise Speed: 181 / 120 Kts  
Range: 500 NM (2 int tanks)  
Payload: 10 with 2 tanks  
Max GWT: 24,500 lbs

## MH-60L



### Communications

FM, VHF, UHF, HF, SATCOM, ATHS, ELT, SABER

Carried: MBITR & IRIDIUM

### Navigation

GPS/INS, TACAN, Doppler, VOR

### Mission Equipment

Cockpit Management System, FLIR, FRIES, Color Wx Radar, Stormscope, BPS, External Rescue Hoist, Folding Stabilator, (2) 185 gal Internal or (1) 200 gal Internal aux tank, Personnel Locator System

### Weapons

(2) M-134 Miniguns

### Performance

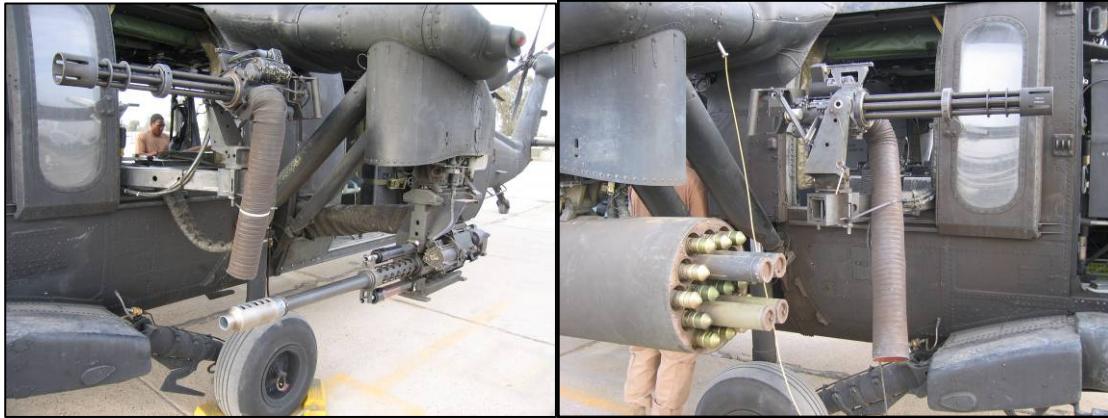
Max/Cruise Speed: 193 / 120 Kts

Range: 500 NM (2 Int Tanks)

Payload: 10 w/ 2 tanks

Max GWT: 23,500 lbs

## MH-60DAP



### Communications

FM, VHF, UHF, HF, SATCOM, ATHS, ELT, SABER

Carried: MBITR & IRIDIUM

### Navigation

GPS/INS, TACAN, Doppler, VOR

### Mission Equipment

Cockpit Management System, FLIR, FRIES, Color Wx Radar, Stormscope, BPS, External Rescue Hoist, Folding Stabilator, (2) 185 gal Internal or (1) 200 gal Internal aux tank, Personnel Locator System

### Weapons

(2) M-134 Miniguns

M261 Rocket Launcher

M230 Chain Gun

Multiple other missiles can be fired.

### Performance

Max/Cruise Speed: 193 / 120 Kts

Range: 500 NM (2 Int Tanks)

Payload: 10 w/ 2 tanks

Max GWT: 23,500 lbs

## MH-47E/G



### Communications

FM, VHF, UHF, HF, SATCOM, ATHS, ELT, SABER  
- Carried: MBITR & IRIDIUM

### Navigation

GPS/INS, AHRS, TACAN, Doppler, VOR, Coupled AFCS and Flight Director

### Mission Equipment / Integrated Avionics

FLIR, FRIES, MMR (multi-mode radar), Stormscope, BPS (ballistic protection system), Rescue Hoist, AR Probe, (3) 800 gal Int Aux Fuel Tanks and FARE, Personnel Locator System

### Weapons

(2) 7.62 mm Miniguns (2) M240

### Performance

Max/Cruise Speed: 170 / 120 Kts  
Range: 600 NM (1 aux tank)  
Payload: 18 seats, 60 pax or 14,000 lbs  
Max GWT: 54,000 lbs

## MH-53J/M PAVE LOW



### **Mission**

The Pave Low's mission is low-level, long-range, undetected penetration into denied areas, day or night, in adverse weather, for infiltration, exfiltration and resupply of special operations forces.

### **Features**

The MH-53J Pave Low III heavy-lift helicopter is the largest, most powerful and technologically advanced helicopter in the Air Force inventory. The terrain-following and terrain-avoidance radar, forward-looking infrared sensor, inertial navigation system with global positioning system, along with a projected map display enable the crew to follow terrain contours and avoid obstacles, making low-level penetration possible.

The MH-53M Pave Low IV is a J-model that has been modified with the Interactive Defensive Avionics System/Multi-Mission Advanced Tactical Terminal or IDAS/MATT. The system enhances present defensive capabilities of the Pave Low. It provides instant access to the total battlefield situation, through near real-time Electronic Order of Battle updates. It also provides a new level of detection avoidance with near real-time threat broadcasts over-the-horizon, so crews can avoid and defeat threats, and replan en route if needed.

Under the Pave Low III program, the Air Force modified nine MH-53H's and 32 HH-53s for night and adverse weather operations. Modifications included forward-looking infrared, inertial global positioning system, Doppler navigation systems, terrain-following and terrain-avoidance radar, an on-board computer, and integrated avionics to enable precise navigation to and from target areas. The Air Force designated these modified versions as MH-53J's.

### **General Characteristics**

**Primary Function:** Long-range infiltration, exfiltration and resupply of special operations forces in day, night or marginal weather conditions

**Builder:** Sikorsky

**Power Plant:** Two General Electric T64-GE/-100 engines

**Thrust:** 4,330 shaft horsepower per engine  
**Length:** 88 feet (28 meters)  
**Height:** 25 feet (7.6 meters)  
**Rotary Diameter:** 72 feet (21.9 meters)  
**Speed:** 165 mph (at sea level)  
**Ceiling:** 16,000 feet (4,876 meters)  
**Maximum Takeoff Weight:** 46,000 pounds (Emergency War Plan allows for 50,000 pounds)  
**Range:** 600 nautical miles (unlimited with aerial refueling)  
**Armament:** Combination of three 7.62 mini guns or three .50 caliber machine guns  
**Crew:** Officers, two pilots; enlisted, two flight engineers and two aerial gunners  
**Date Deployed:** 1981  
**Unit Flyaway Costs:** \$40 million (fiscal 2001 constant dollars)  
**Air Force Inventory:** Active force, 13 MH-53J's, 25 MH-53M's; Reserve, 0; ANG, 0

**Point of Contact**

[Air Force Special Operations Command](#), Public Affairs Office; 100 Bartley Street; Hurlburt Field, FL 32544-5273; DSN 579-5515 or (904) 884-5515.

October 2005

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